

(No Model.)

C. EICKEMEYER.
BICYCLE BRAKE.

No. 597,403.

Patented Jan. 18, 1898.

Fig: 1.

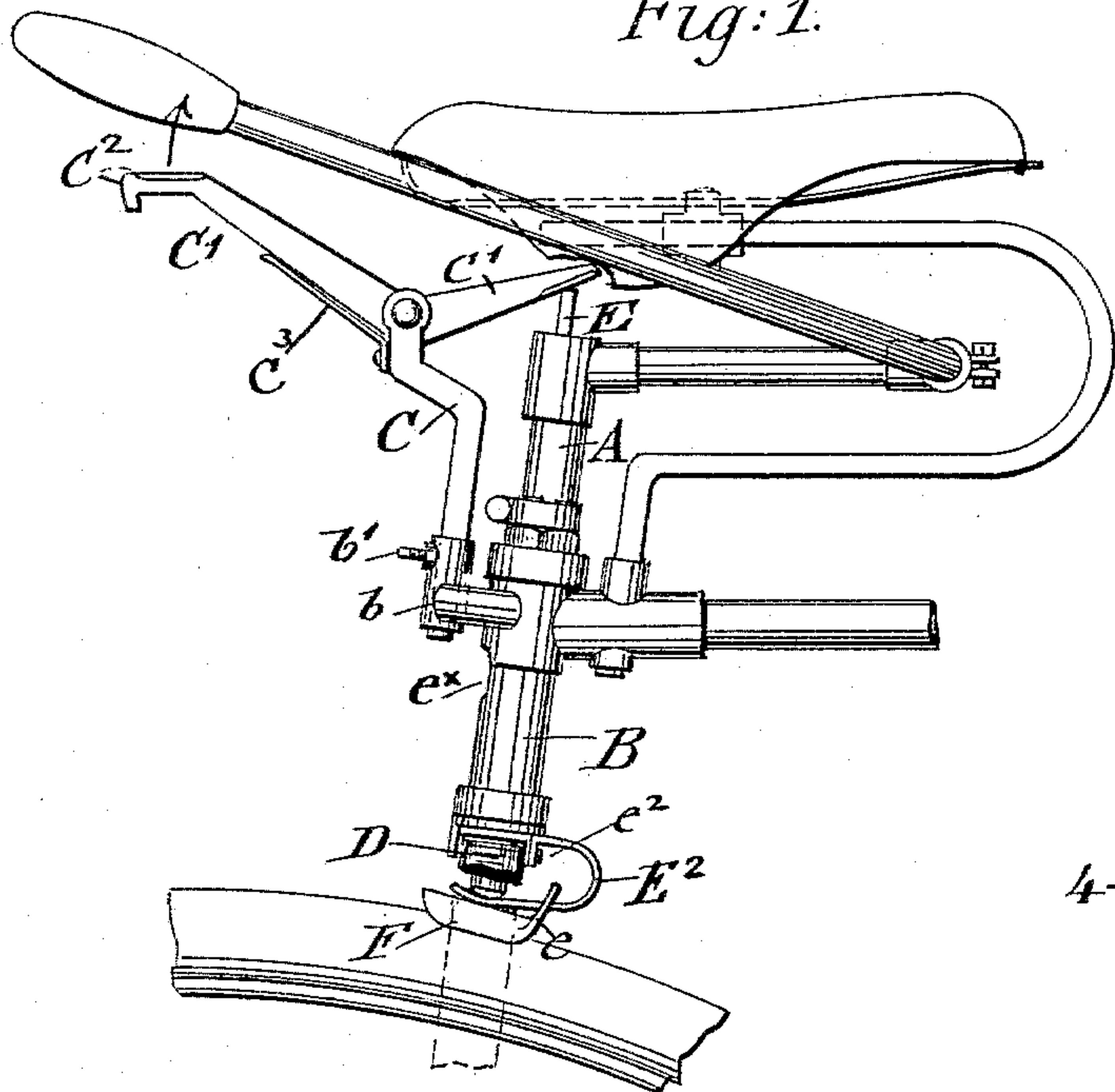


Fig: 2.

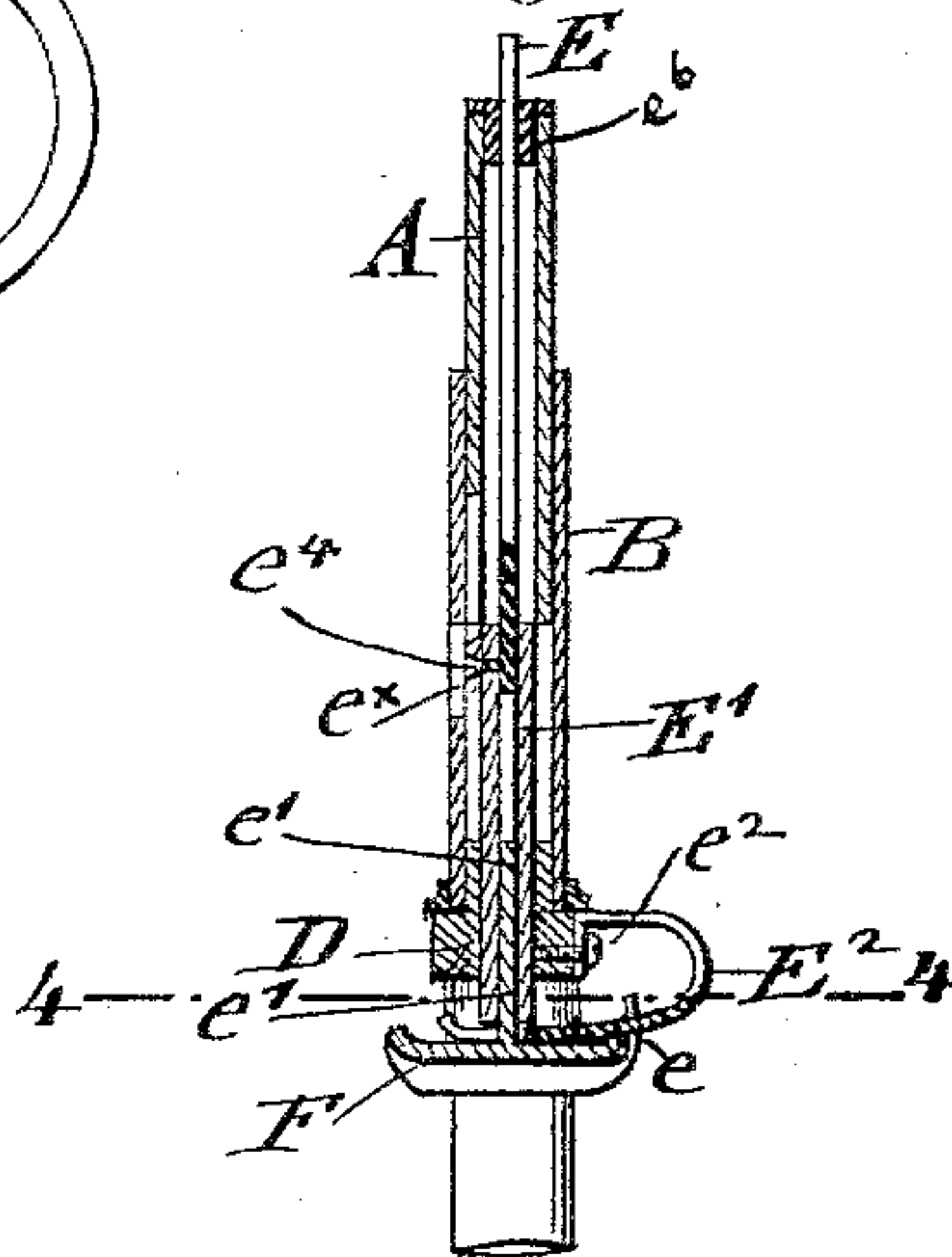



Fig. 4. 

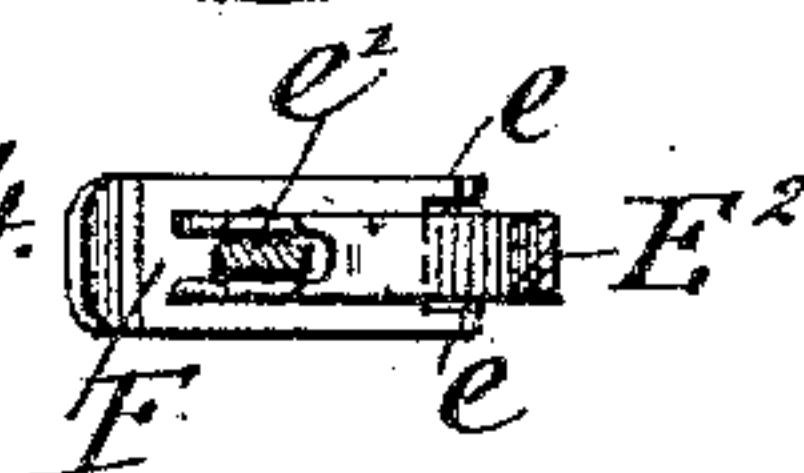
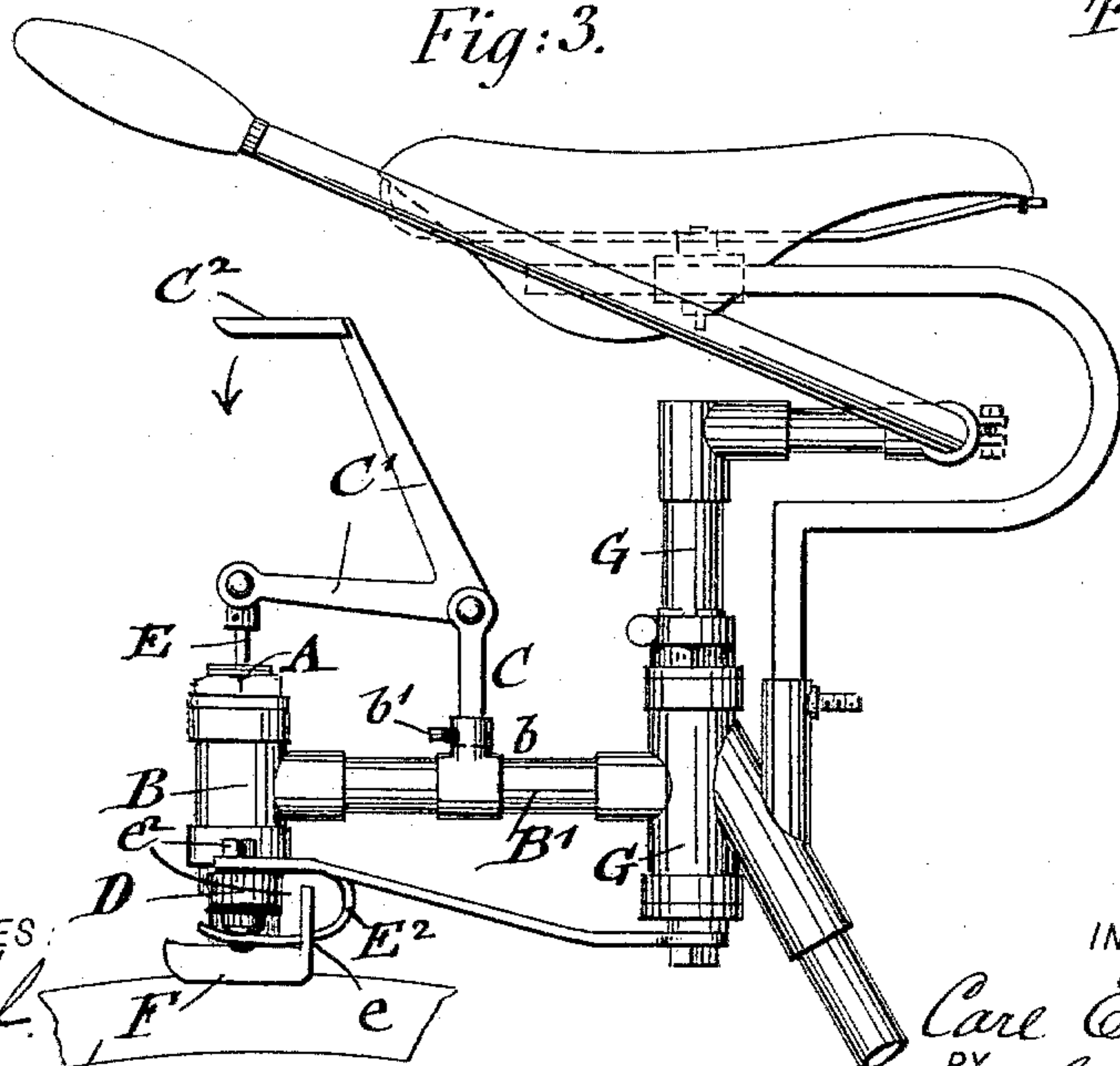


Fig:3.



WITNESSES

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BICYCLE-BRAKE.

SPECIFICATION forming part of Letters Patent No. 597,403, dated January 18, 1898.

Application filed November 12, 1896. Serial No. 611,822. (No model.)

To all whom it may concern:

Be it known that I, CARL EICKEMEYER, a citizen of the United States, residing at Yonkers, in the county of Westchester and State of New York, have invented certain new and useful Improvements in Brakes for Bicycles, of which the following is a specification.

This invention relates to an improved brake for bicycles, which is especially designed to be used in connection with bicycles of that class in which the handle-bars are supported on a rearwardly-extending tube of the spindle of the front wheel and extended from said tube in forward direction, said brake being so arranged as to be out of the way and readily operated by means of a brake-lever that is within convenient reach of the handle-bars; and the invention consists of a brake for bicycles the brake-rod of which is arranged in the spindle of the front fork and actuated by a brake-lever fulcrumed to an adjustable standard on the bearing of the front spindle. The brake-shoe is attached at the lower end of the brake-rod and supported in raised position by a U-shaped spring, the recessed front end of which engages the lower recessed part of the brake-rod. The brake-shoe has upwardly-bent projections at its rear end that engage the brake-spring and prevent it from turning independently of the fork-spindle, as will be fully described hereinafter, and finally pointed out in the claim.

In the accompanying drawings, Figure 1 represents a side elevation of the upper portion of a bicycle with my improved brake applied thereto. Fig. 2 is a vertical central section through the spindle of the front fork and the brake. Fig. 3 is a side elevation of a brake shown as applied to a modified construction of bicycle; and Fig. 4 is a detail horizontal section on line 4 4, Fig. 2.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A represents the spindle of the front fork of my improved bicycle, which spindle is supported in the head B of the frame, which head carries at its front part a socket *b*. In the socket *b* is adjustably supported an upright standard C by means of a set-screw *b'*. To the upper end of the standard C is applied a brake-lever C', the front end of which is provided with a handle

C², while the flattened or enlarged rear end acts on the upper end of a brake-rod E, which projects above the spindle A of the front fork, as shown in Fig. 1. The front arm of the fulcrumed brake-lever C' is supported on a flat spring C³, that is attached to the upper end of the standard C, its free end pressing the brake-lever in upward direction. To the crown of the fork D is attached a flat U-shaped brake-spring E², which is provided at its upper end with a downwardly-bent shoulder or offset, through which passes the fastening-screw *e*³, as shown in Figs. 1 and 2. The lower part of the U-shaped spring E² is extended in forward direction and provided with a recess in its front end. The brake-rod E is made in two sections, a lower section *e'*, extending at right angles from the brake-shoe F, and the upper section that is guided in a screw-plug *e*⁶ at the upper end of the hollow spindle A. The sections of the brake-rod E are connected by a sleeve E', to which the upper section is attached by a clamping-screw *e*⁴. The sleeve E' slides in the crown of the fork D and in the hollow spindle of the same, as shown in Fig. 2. The recessed front end of the brake-spring E² is located between the lower end of the sleeve E' and the brake-shoe and so arranged as to engage side recesses on the section *e'* next adjacent to the brake-shoe, as shown in Fig. 4. The brake-shoe F has forked projections *e* at its rear end, which engage the spring E², so as to prevent the brake-shoe F from turning on the axis of the brake-rod and retain it thereby always in the same direction as the wheel-tire.

An aperture *e*^x is arranged in the head B for giving access to the clamping-screw *e*⁴, so that the upper end of the brake-rod E can be adjusted higher or lower in the sleeve E'. The lower end of the fork-spindle A is slotted for permitting the clamping-screw *e*⁴ to play up and down in said slot, when the brake-rod E, with its sleeve E', is lowered by the pressure of the brake-lever C'.

In the modified construction shown in Fig. 3 the upright standard C, to which the brake-lever C' is fulcrumed, is arranged in a socket *b* on a horizontal tube B', which connects the head B for the spindle A of the front fork with a support G for a working spindle G',

arranged at some distance back of the spindle of the front fork. In all other respects the construction remains the same as shown in Figs. 1 and 2.

5 My improved brake has the advantage that it can be readily operated by the wheelman by taking hold of the handle at the upper end of the brake-lever and pulling the handle of the same in upward direction or pressing
10 it in downward direction, as respectively shown by the arrows in Figs. 1 and 3, whereby the brake-shoe is operated against the tension of the supporting-spring E^2 and applied to the tire. The brake-lever is within
15 easy reach of the handle-bars, so that the brake-shoe can be pressed with more or less friction on the tire of the front wheel whenever required. The brake-shoe is instantly released and returned into its normally-raised position
20 by the spring E^2 as soon as the brake-lever is released.

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

25 The combination, with the tubular spindle of

the front fork, and a U-shaped spring attached at its lower end to the crown of the front fork, and having its lower end forked or bifurcated, of a brake-rod arranged to slide in said spindle and being provided with side recesses at its
30 lower end, in which the bifurcations at the lower end of the U-shaped spring engage, a brake-shoe fixed to the lower end of said rod and provided with projections at its rear end, said projections engaging on both sides of the
35 spring to prevent the axial motion of the brake-rod and shoe independently of the spindle, said spring normally holding the brake-shoe raised in inoperative position, and means for depressing the brake-rod and the
40 shoe, to cause the latter to act, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

CARL EICKEMEYER.

Witnesses:

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