

No. 636,624.

Patented Nov. 7, 1899.

H. W. E. BRAUER & M. JASPERSEN.

MOVEMENT FOR BICYCLES.

(Application filed May 19, 1898.)

(No Model.)

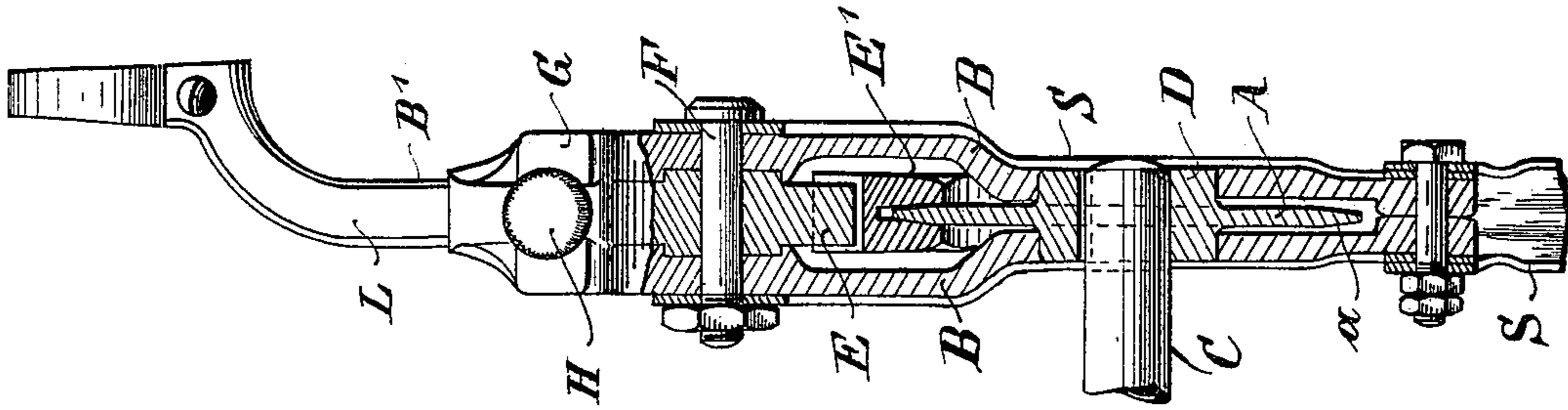


Fig. 2.

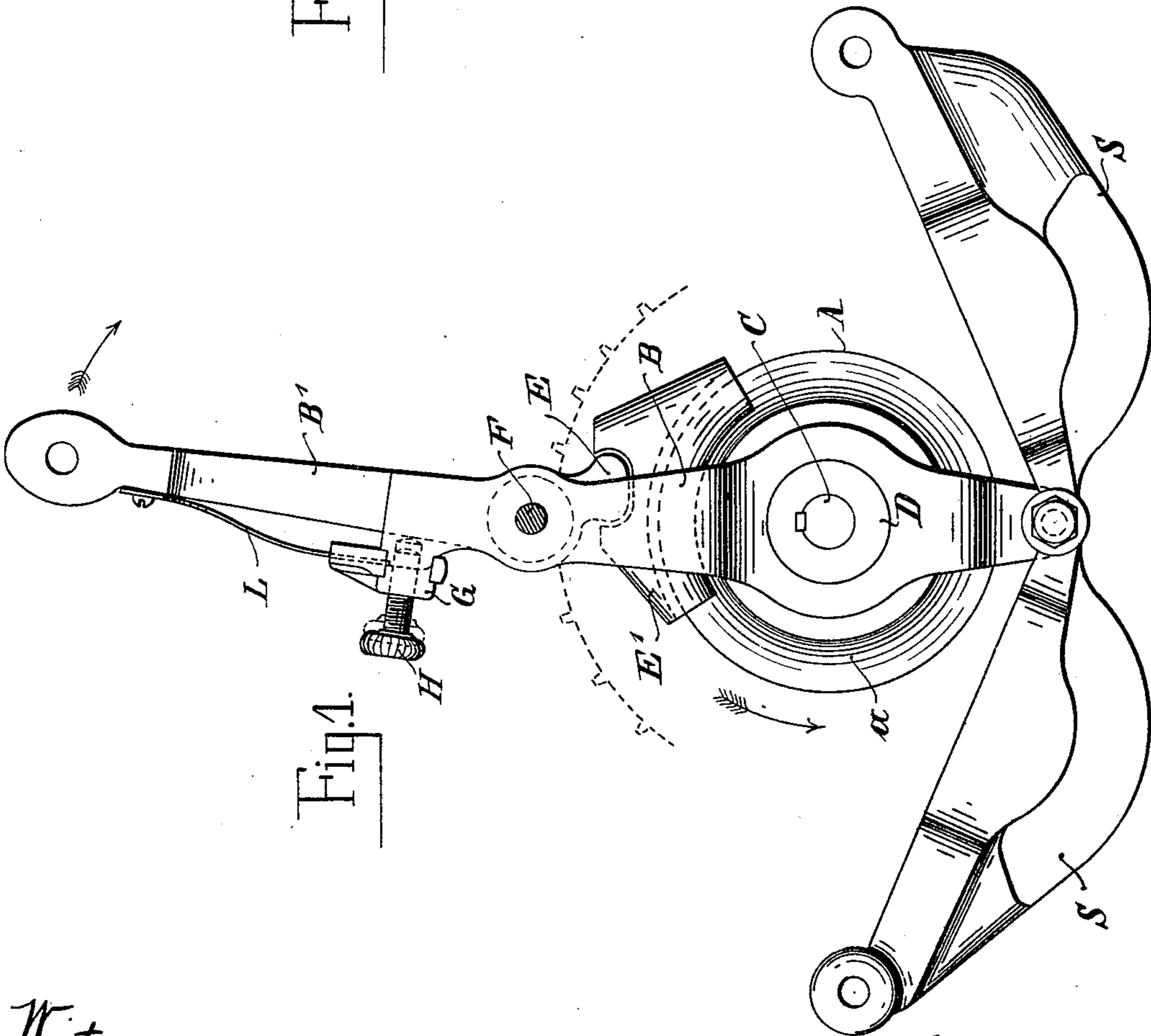


Fig. 1.

Witnesses:
J. E. Knight.
J. Green

Inventors:
H. W. E. Brauer and
Max Jaspersen
By Paul W. Brown attys.

UNITED STATES PATENT OFFICE.

HEINRICH W. E. BRAUER AND MAX JASPERSEN, OF HAMBURG, GERMANY.

MOVEMENT FOR BICYCLES.

SPECIFICATION forming part of Letters Patent No. 636,624, dated November 7, 1899.

Application filed May 18, 1898. Serial No. 681,029. (No model.)

To all whom it may concern:

Be it known that we, HEINRICH WILHELM EDUARD BRAUER, master locksmith, and MAX JASPERSEN, merchant, subjects of the Emperor of Germany, residing at Hamburg, in the Empire of Germany, have invented certain new and useful Improvements in Movements for Bicycles, consisting of a leverage constructed with a movably-connected bent lever and a lever which works on a disk on the bottom bracket-spindle; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

Right and left of the bottom bracket-spindle are placed disks A, turned smooth on their circumference, which take the place of the cranks and are fixed to the spindle C. These disks have each of them a single or double hub D, on which a lever-arm B turns, which can be lengthened downward. The head of the lever-arm B turns on the pin F. Around this pin F also a bent lever B' and E turns, of which the one arm B' is connected with the pedals, while the other arm E has a circular or curviform piece which locks in a clip E', situated on the circumference of the disk and capable of moving around it. When the lever end B' is moved, then the clip E is pressed upon the disk A, so that this and the wheel along with it are set in motion. To minimize the dead-point, a cross-piece G is arranged on the lever-arm B, with an adjusting-screw H. It is possible by screwing in the screw H more or less to regulate the amplitude of the lever-arm B'. On the lever-arm B' there is a spring L, which by means of the cross-piece G is put in connection with the lever-arm B. The spring L is fixed at one end to the lever-arm B' and bears outward at the other end upon the lever B through the medium of the cross-piece G, and by the action of the short arm E of the elbow-lever B' E tends to force the friction-clip E' constantly in contact with the beveled periphery of the disk A, so as to lock

the lever B to the disk A. When the lever-arm B' is withdrawn, this, on the other hand, suspends the spring-power and draws the clip E' off the disk, so that the wheel can revolve farther. On the other hand, it is possible by means of the adjusting-screw H, situated on the cross-piece G on the lever-arm B, to change the movement into a crank-movement. This is effected as follows: The screw H is screwed down, so that the lever B' presses the clip E' tightly on the disk A, and thereby changes the otherwise-movable lever into a fixed crank.

The sides of the disk A can be also beveled at *a*. This entails the advantage of a very large adhesion-surface, so that it is possible to use the smallest parts conceivable with the least weight—a point of special importance in bicycles.

S is a case which environs the disk with its parts.

We claim—

The combination of the shaft C, the beveled disk A keyed thereon, the lever B formed with two parallel arms, journaled on the hub of the disk A, the segment-formed friction-clip E' embracing the edge of the disk A, the elbow-lever B' E, fulcrumed between the lever-arms B, B having a long arm B' to which power is applied and a short arm E engaging in a cavity in the back of the friction-clip E' the spring L acting upon the elbow-lever B' E to press the friction-clip into engagement with the disk, and the set-screw H mounted in a cross-piece G on the lever B, B, and bearing on the lever-arm B' to regulate and control the angular movement of the elbow-lever B' E relatively to the lever B, B' as shown and described.

In testimony whereof we affix our signatures in presence of two witnesses.

H. W. E. BRAUER.
MAX JASPERSEN.

Witnesses:

WALDEMAR F. LEONHARD,
E. H. L. MUMMENHOFF.