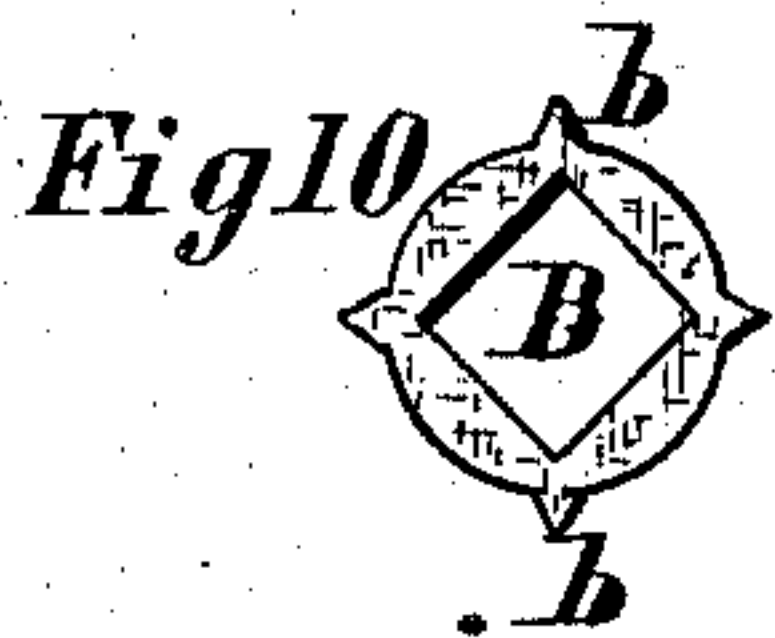
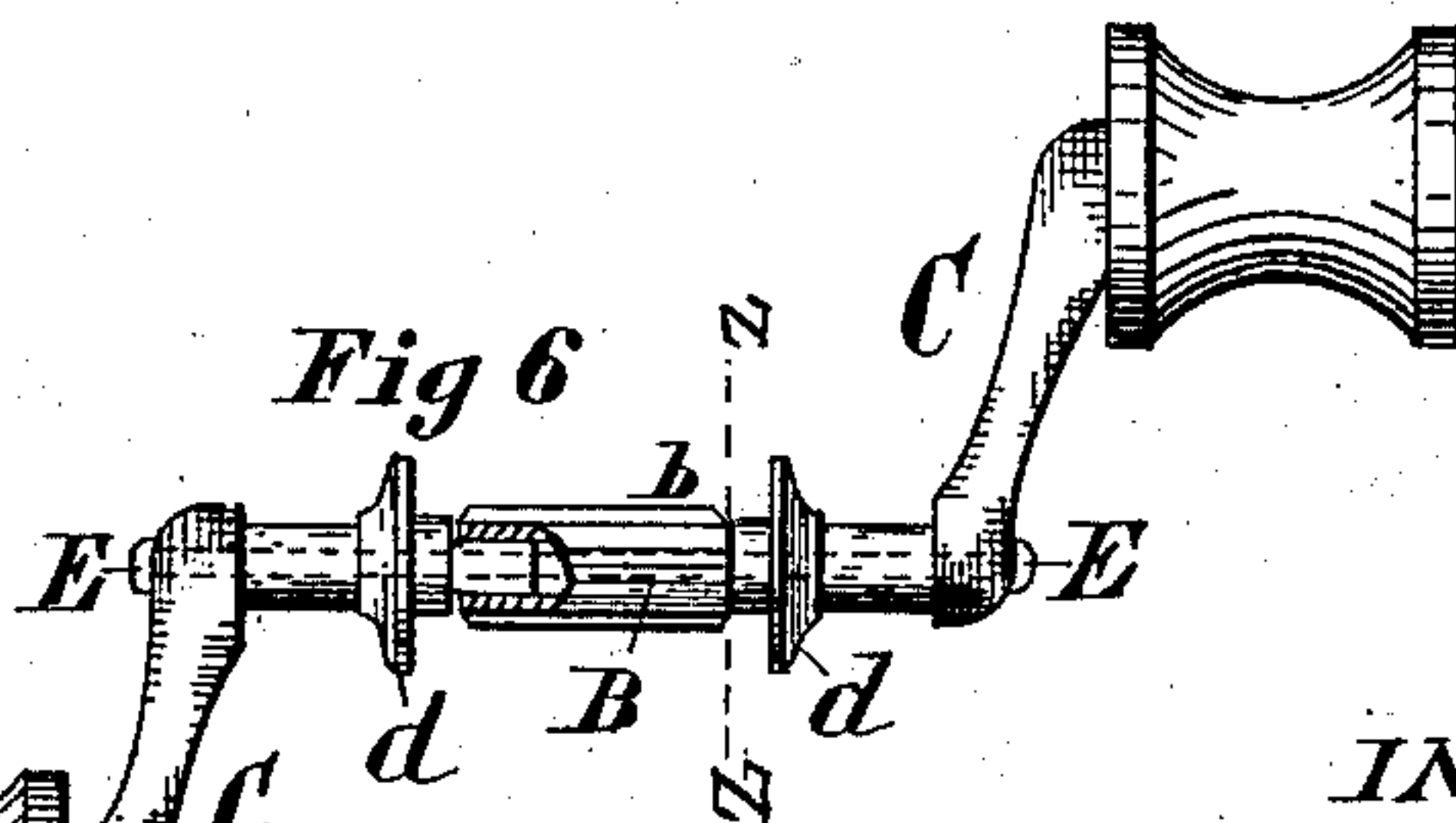
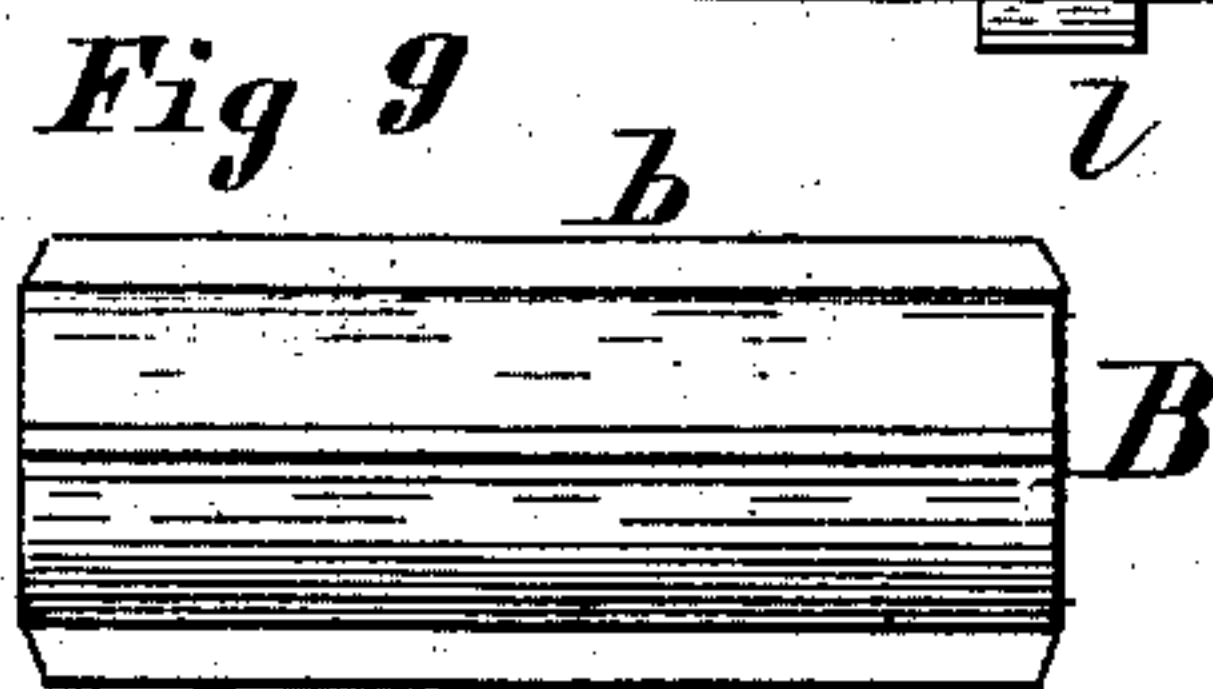
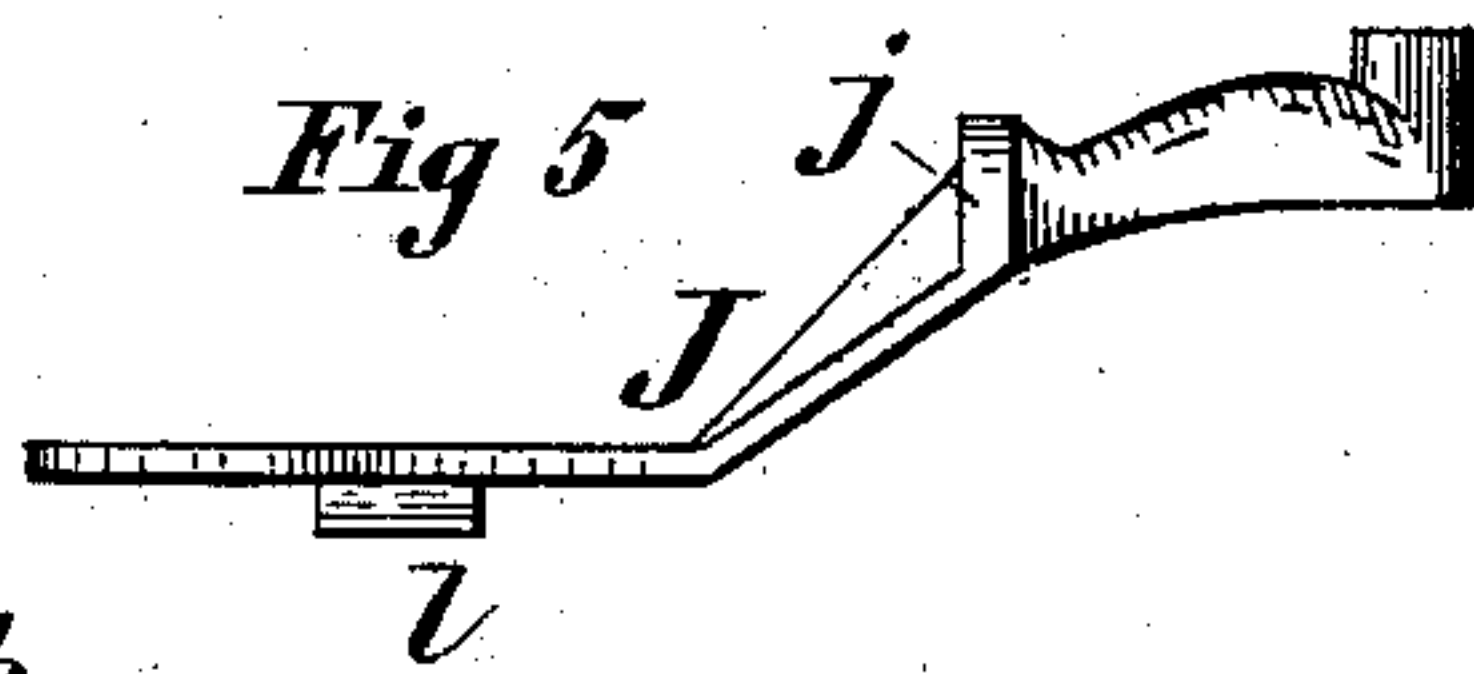
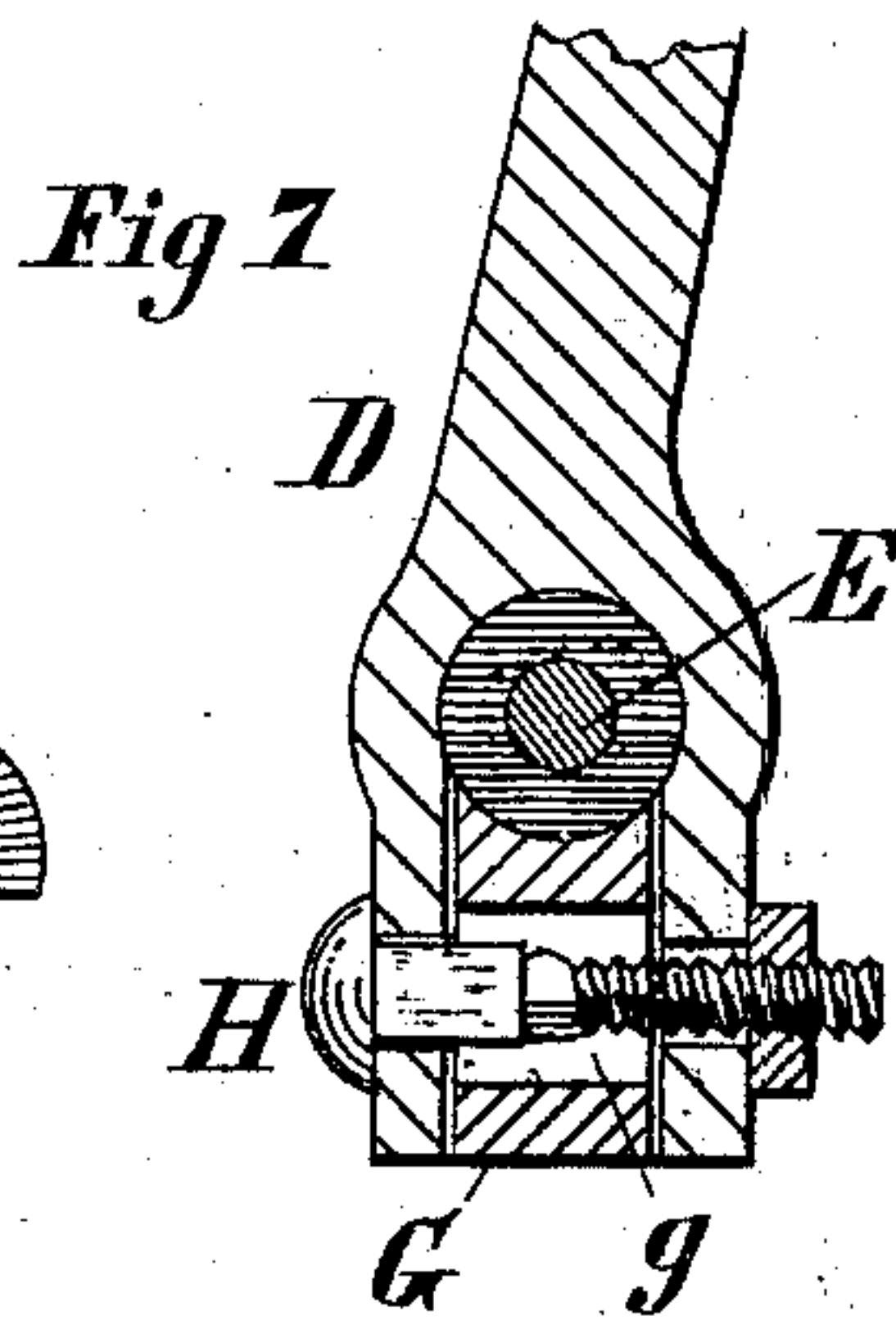
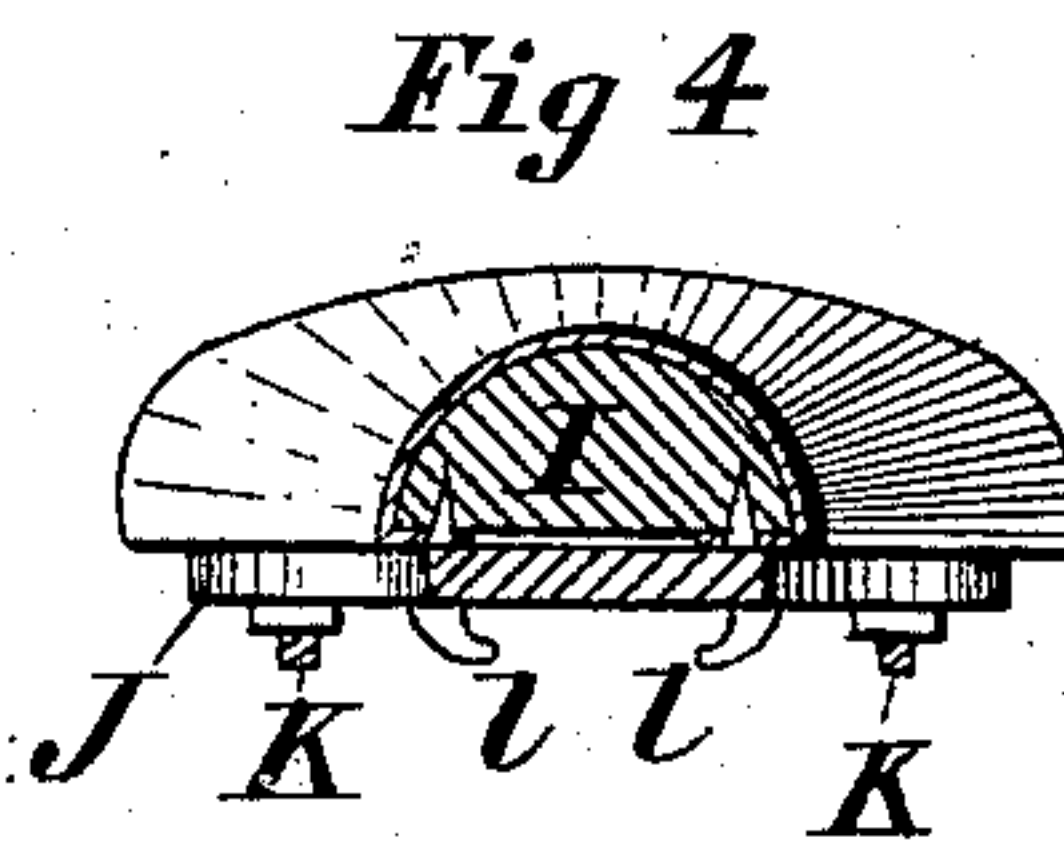
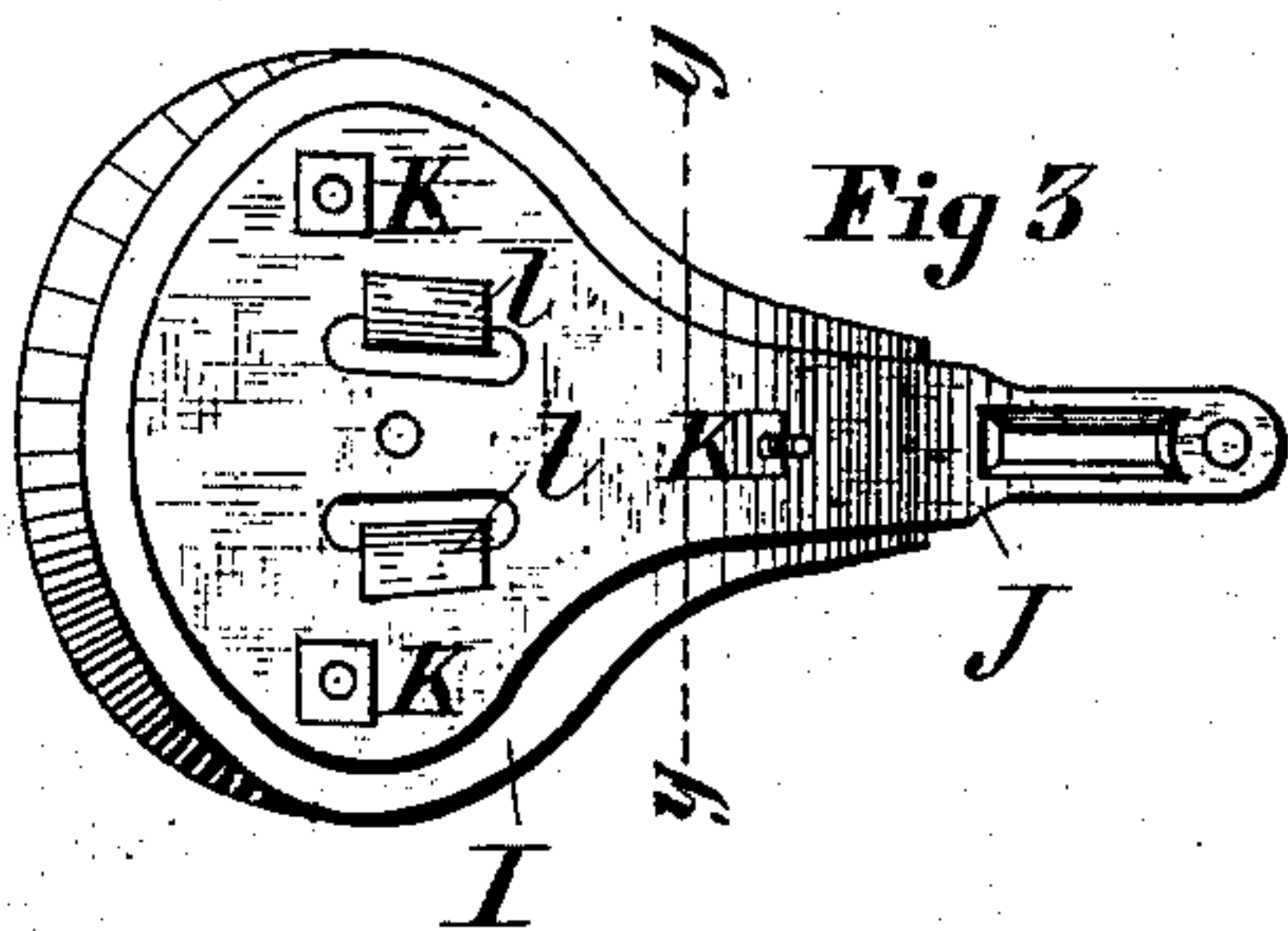
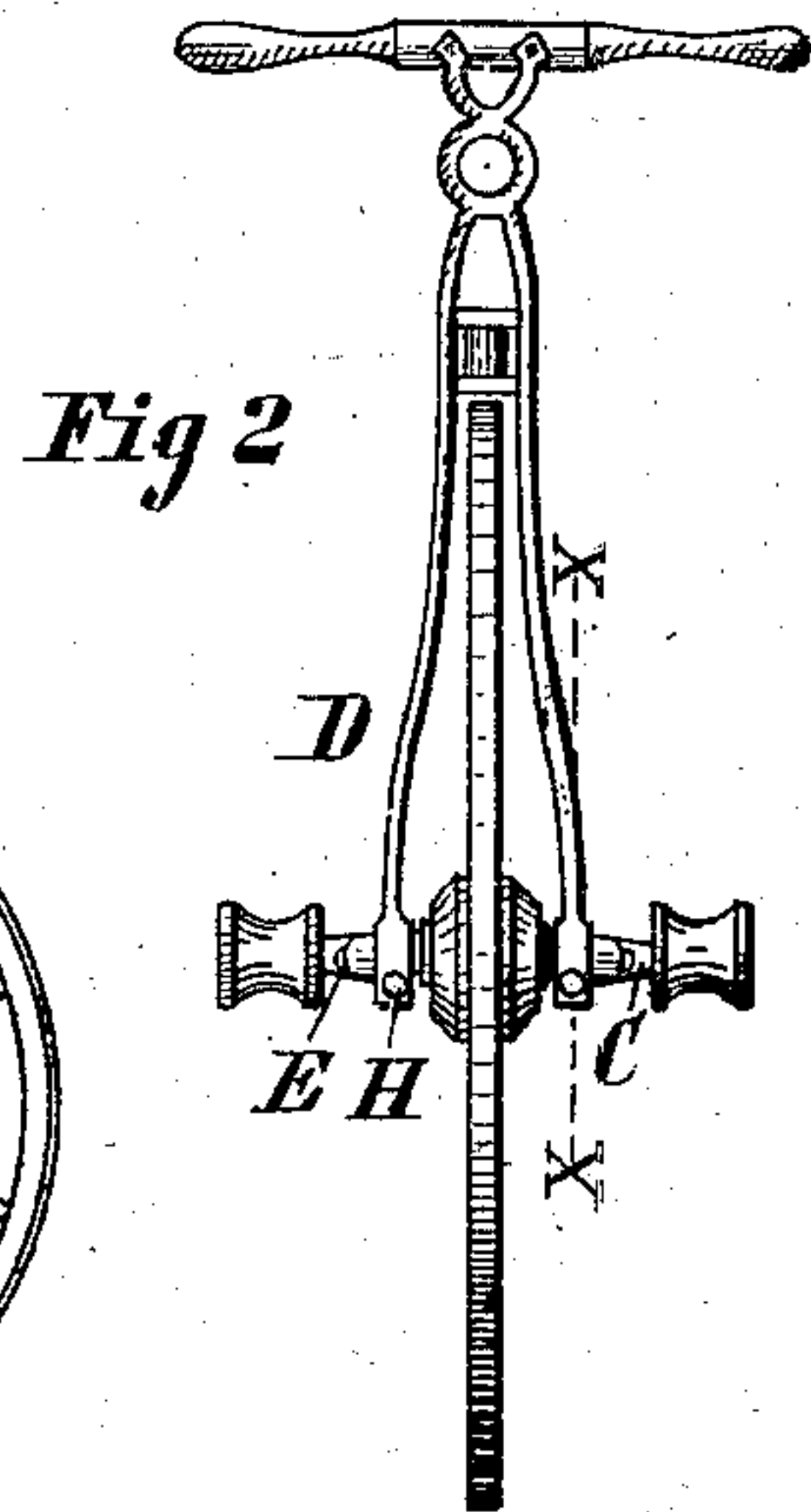
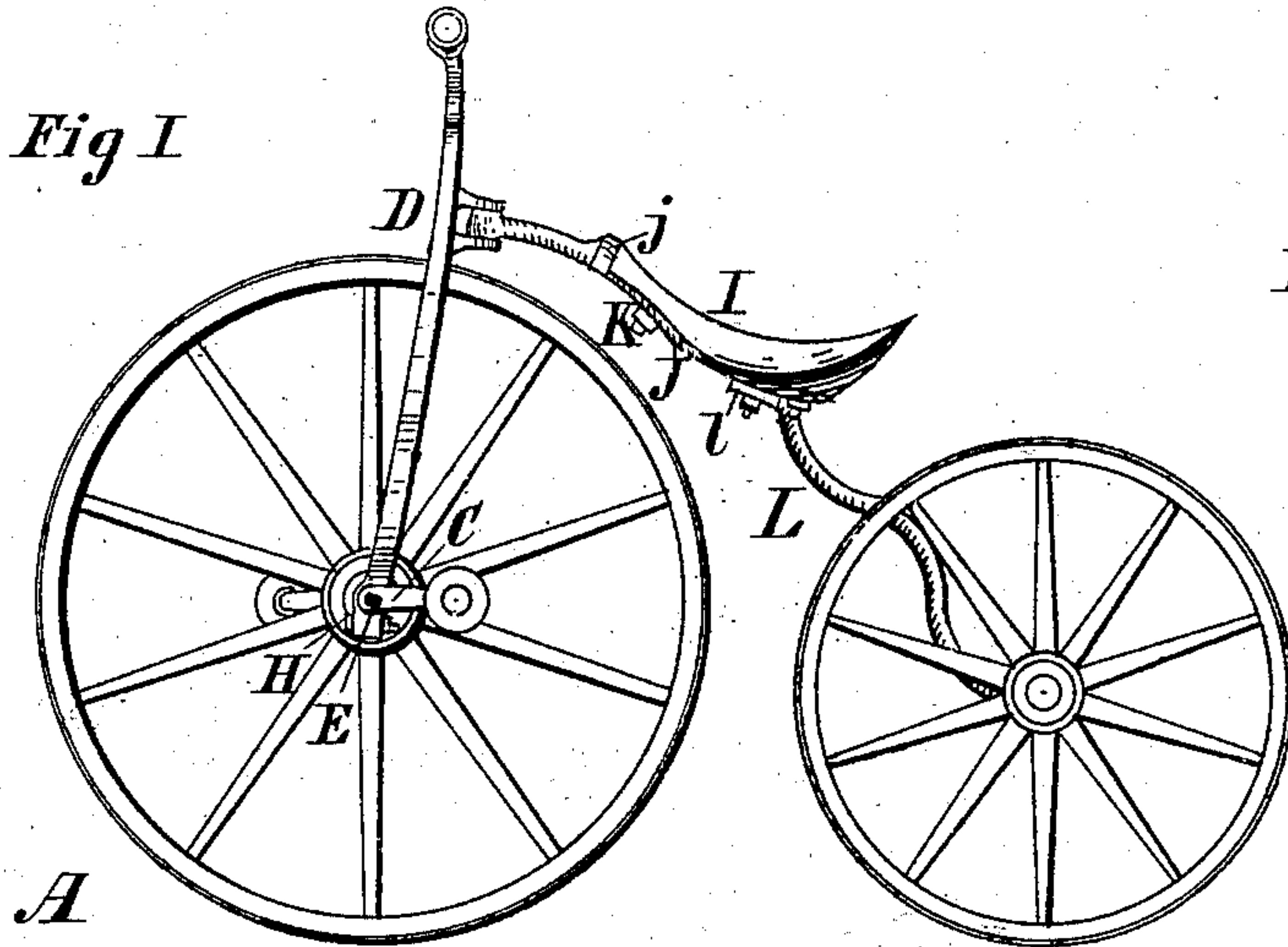


H. WILL & C. UEBELE.
Velocipede.

No. 219,551.

Patented Sept. 9, 1879.



Witnesses { W. C. Levis d
L. A. Bunting C

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UNITED STATES PATENT OFFICE.

HENRY WILL AND CONRAD UEBELE, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN VELOCIPEDES.

Specification forming part of Letters Patent No. **219,551**, dated September 9, 1879; application filed August 29, 1878.

To all whom it may concern:

Be it known that we, HENRY WILL and CONRAD UEBELE, of Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Velocipedes, which is fully described in the following specification, reference being had to the accompanying drawings, in which—

Figure 1 represents a side elevation of our improved velocipede; Fig. 2, a front elevation of front wheel; Fig. 3, a view of the under side of the seat detached; Fig. 4, a cross-sectional view of the seat, taken on the line *yy*, Fig. 3; Fig. 5, a side elevation of the metal portion of the seat with the wood removed. Fig. 6 is a side elevation of the cranks and their attachments detached; Fig. 7, a vertical sectional view taken at the line *XX*, Fig. 2, showing the parts enlarged. Fig. 8 is a side elevation of the bearing-block; Fig. 9, a side elevation of the sleeve or box which is driven into the center of the hub; Fig. 10, an end view of the same; and Fig. 11 is a sectional view taken at the line *zz*, Fig. 6, showing in addition a part of the wheel.

The object of our invention is to make a simple, cheap, and durable velocipede with as few parts and with as little expense to manufacture as possible by so constructing it that it needs no machine-work for fitting.

Our invention consists, first, in the improved method of connecting the crank to the hub, whereby the parts are held firmly in place without cutting the screw-threads.

In the accompanying drawings, *A* represents the front wheel of a velocipede, and *B* a sleeve or box, provided with ribs *b*. This sleeve or box *B* is driven into the hub of the wheel so as to be securely held therein. The cranks *C* are attached to the hub so as to turn the wheel by their ends being made angular, so as to fit into the box or sleeve *B* in such a manner as not to turn therein. These cranks are held in position by means of a rod, *E*, that passes through them and the hub, holding the flanges *d* against the ends of the hub.

It will be observed that by this construction there is no machine-work for fitting the parts required.

The ends of the cranks slip into the sleeve

or box, and, being cast hollow, so as to receive the rod *E*, the parts are readily put together and secured in place.

The ends of the rods *E* may either be headed down after insertion or secured in place so as to hold the parts together by any of the ordinary means of fastening.

D is a standard of the forked form embracing the wheel, and the lower ends of its branches have their bearing upon the crank just outside of the flanges *d* at the ends of the wheel-hub. These lower ends of the forked standard are divided, as clearly shown in Fig. 7, so as to straddle the crank and project below it on either side.

G is a movable block, provided with an elongated slot, *g*, which fits between the parts of the lower ends of the standard that project below the crank, as clearly shown in Fig. 7 of the drawings.

H is a bolt, which passes through the projecting ends of the standard and the slotted block *G*. Whenever the bearings of the standard upon the crank become worn or loose, the bolt *H* can be loosened and the slotted block *G* moved upward closely against the crank, tightening the bearing.

By this method of attaching the standard we are enabled to attach it and detach it and regulate it so as to always secure the kind of bearings desirable.

We have also found that a metallic seat for a velocipede is more or less objectionable, for various reasons; and to overcome those objections we make a wooden seat, *I*, which is secured to the metallic piece *J* by means of bolts and nuts *K*.

The metallic piece *J* is provided with holes, through which the bolts *K* that are firmly secured to the wooden seat *I* pass. This wooden seat may or may not be upholstered. We also provide the metallic piece *J* with recesses *j*, into which the front end of the wooden seat projects to hold it securely in place. The front end of the metallic piece *J* is secured to a standard, *D*, by means of the hinge-joint, (clearly shown in Fig. 1,) and to the reach *L* by means of lugs *l*. (Clearly shown in Fig. 4.) This means of attaching, as well as the other parts of the velocipede which we have herein especially described, are substantially the same

as those shown and described in our Letters Patent dated April 17, 1877.

The new features which we desire to cover by this patent have been fully set forth above.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

The combination, with the wheel of a velocipede, of the box B, angular shafts of the

crank C, and the rod E, the parts being adapted to each other and to the standards of the wheels, as set forth.

HENRY WILL.
CONRAD UEBELE.

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