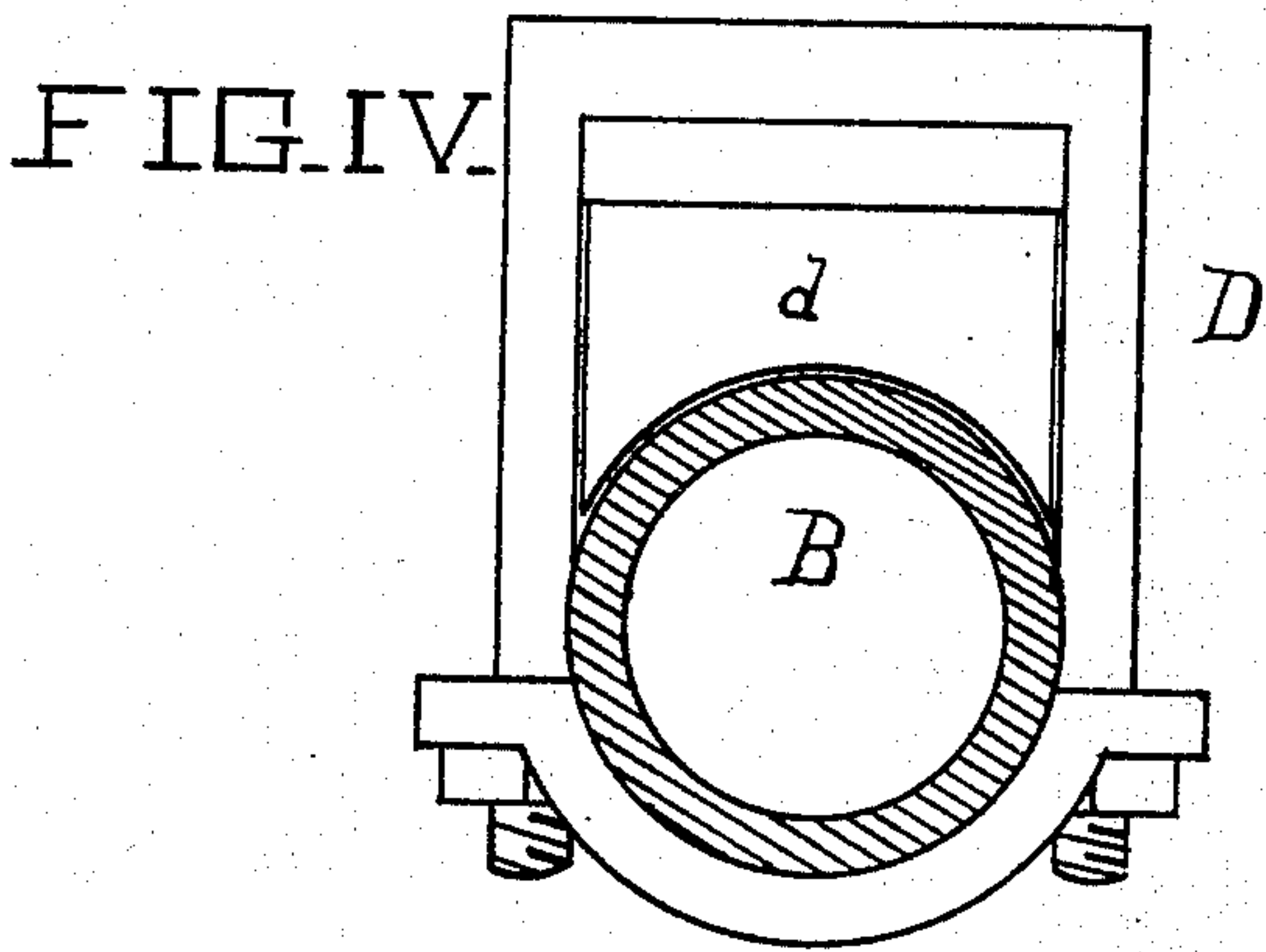
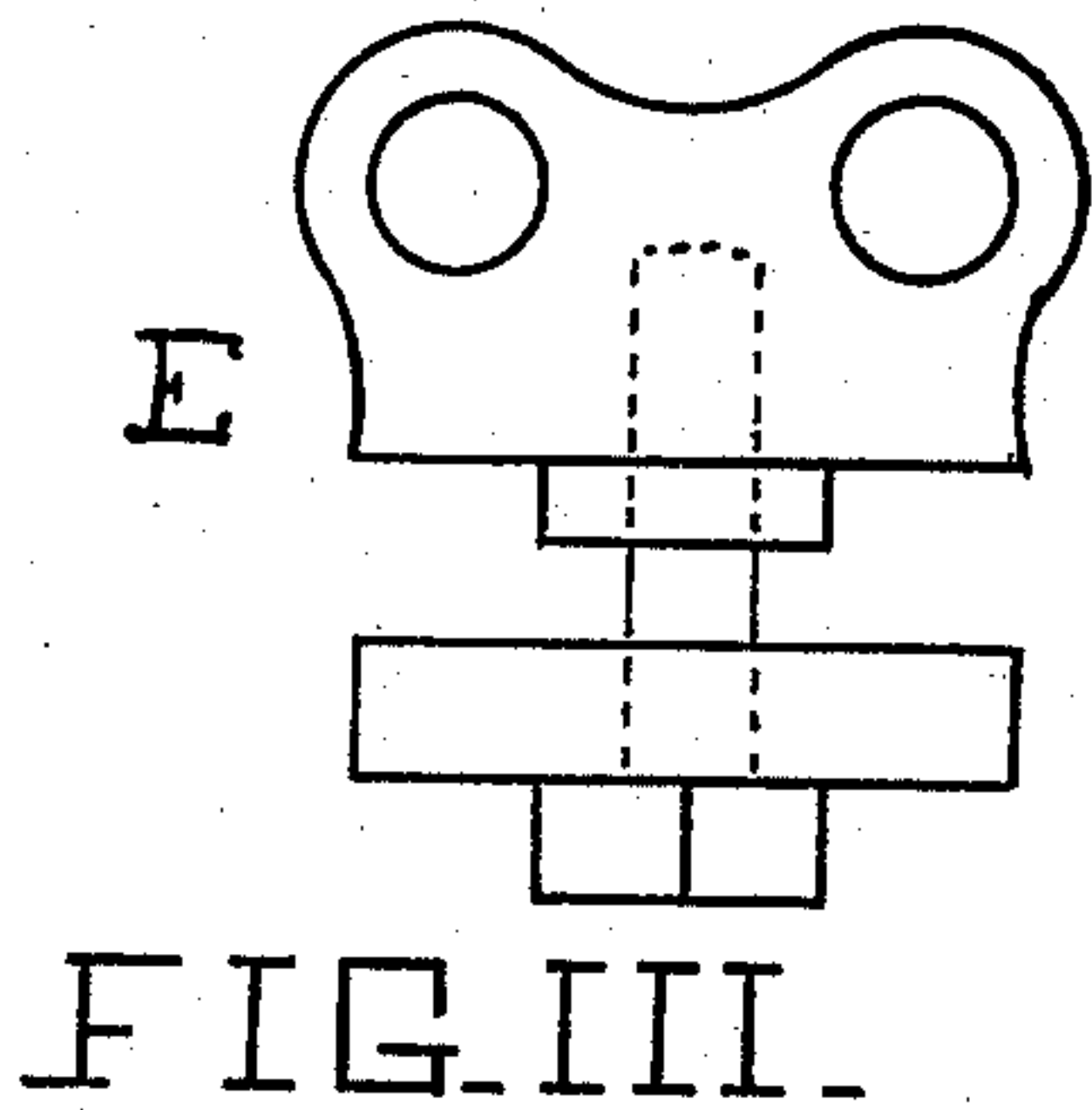
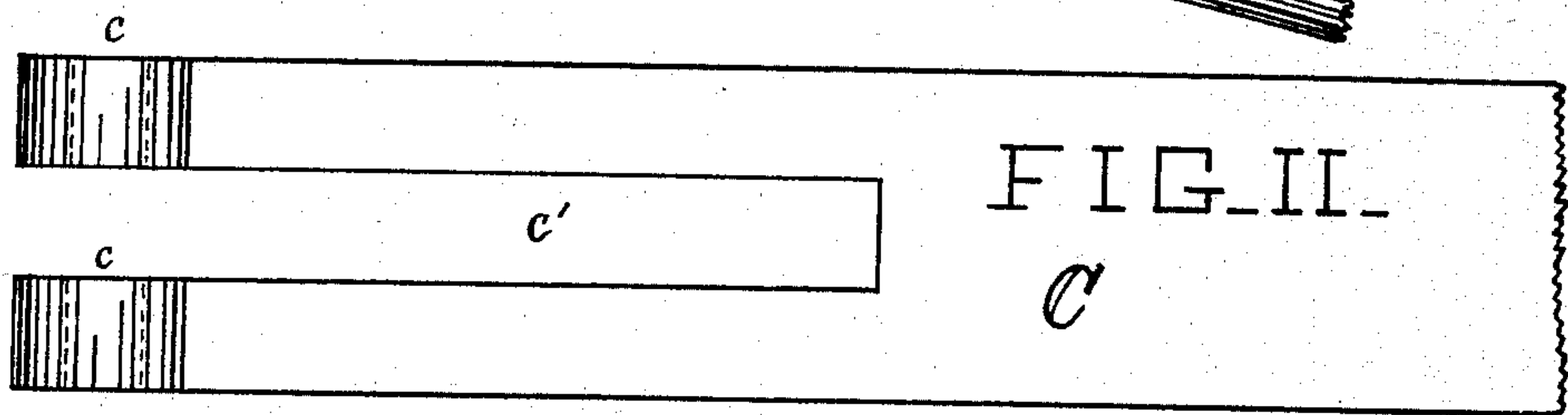
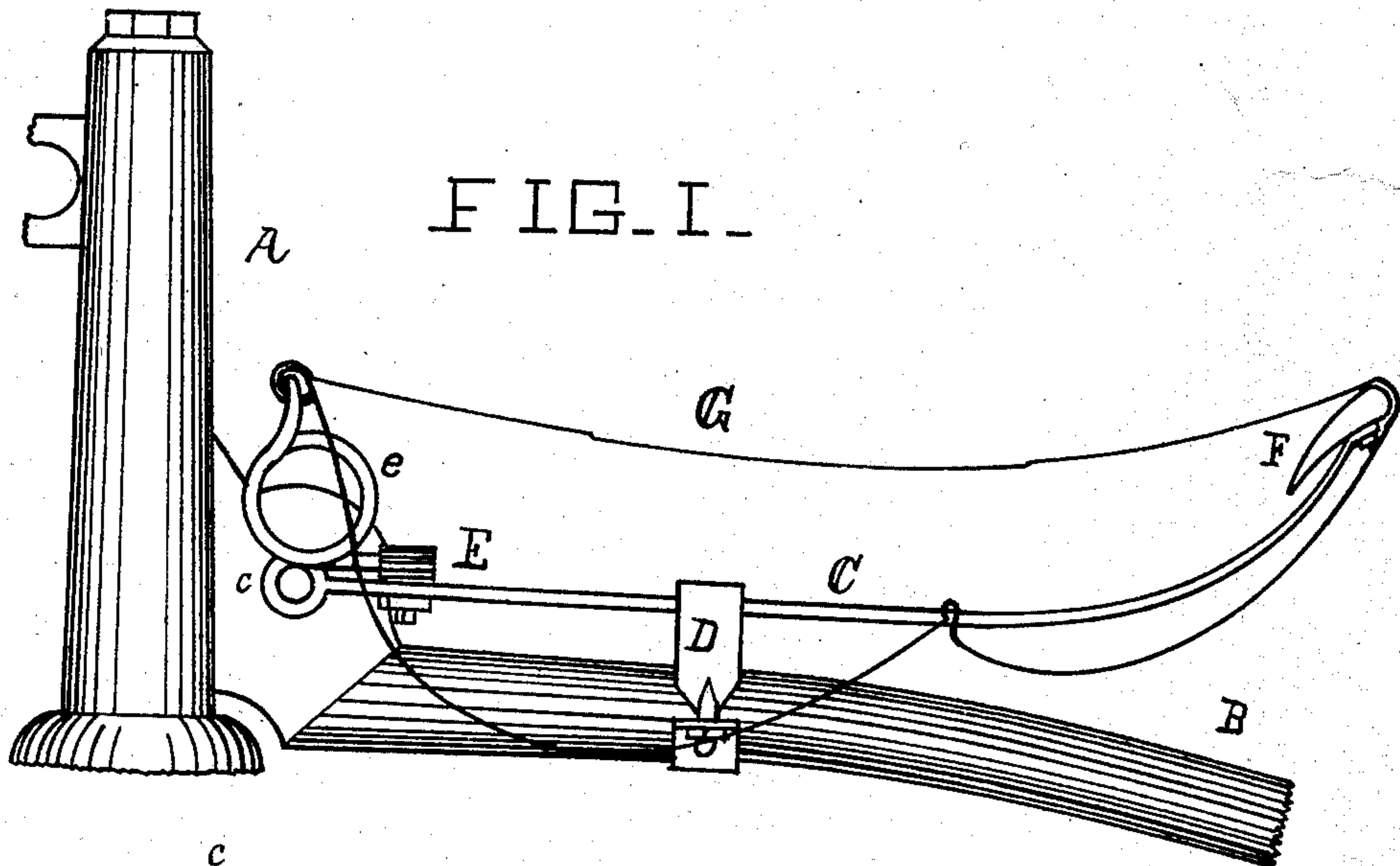


(No Model.)

A. L. GARFORD.
SADDLE FOR VELOCIPEDES.

No. 388,484.

Patented Aug. 28, 1888.



Witnesses.
Allie E. Bruce
John Blanchard.

Inventor.
Arthur L. Garford.
by W. L. Fay his atty.

UNITED STATES PATENT OFFICE.

ARTHUR L. GARFORD, OF ELYRIA, OHIO.

SADDLE FOR VELOCIPEDES.

SPECIFICATION forming part of Letters Patent No. 388,484, dated August 28, 1888.

Application filed September 19, 1887. Serial No. 250,031. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR L. GARFORD, a citizen of the United States, residing at Elyria, in the county of Lorain and State of Ohio, have invented a new and useful Saddle for Bicycles or Tricycles, of which the following is a specification.

The object of my invention is to provide a saddle that can be adjusted to riders of different weights; that will be easy to ride; that when sprung down by jars or jolts will not recover beyond the initial point, and will throw the rider back from the head of the machine and thereby increase the safety and ease of riding bicycles. I attain these object by means of the mechanism illustrated in the accompanying drawings, in which—

Figure I is a side elevation of my invention, showing its application to a broken section of a bicycle. Fig. II represents a top view of the front end of my flat spring, showing slot in same. Fig. III represents the front end elevation of clamp for coil-spring. Fig. IV represents end elevation of clamp for flat spring and fulcrum used in connection therewith.

Similar letters refer to similar parts throughout the several views.

A represents the head of any ordinary bicycle; B, a section of the backbone; C, a flat curved spring of the general form represented in the drawings; but this form may be varied to some extent and perform its functions equally as well. The front end of this spring is provided with a bifurcated head by means of the slot *c'*, as shown in Fig. II, and each branch or arm is provided with an eye or hole, *c*, by means of which and a small bolt it is attached to the neck of the backbone of a bicycle, as shown in Fig. I of the drawings. The rear end is provided with a bolt-hole or other suitable means for attaching same to the back frame of a saddle.

D represents an adjustable clamp, and *d* a fulcrum or support. This clamp D draws and binds together the backbone B, spring C, and fulcrum *d*, and secures the same rigidly. This fulcrum *d* forms a support for the spring C, near its center, and over which it bends as weight is applied to said spring. This clamp and fulcrum cause more or less tension or stiff-

ness in the spring C as it is moved farther from or nearer to the front end of said spring.

E represents another adjustable clamp, which is so constructed as to be rigidly secured to the front end of the flat spring C and be capable of movement back and forth from the front end of said flat spring C to adjust slack in seat. To this clamp E is attached a spring, *e*, which may be of the form shown in the drawings, or any other suitable form, and so constructed as to have the principal motion of its upper end back and forth, instead of up and down. To the upper end of this spring is attached the front end of the seat or cover of the saddle.

F represents the back frame to the saddle, of any suitable form, to which is attached the rear end of the flat spring C and the rear end of the cover or seat to the saddle, G. This cover G is of sufficient length to be held taut when attached, as heretofore explained, at the front end to the spring *e* and at the rear end to the frame F. Lengthwise through the center of this cover a slit may be cut to give same ventilation and more pliability.

The operation of my invention is as follows, to wit: The saddle is attached to the backbone of a bicycle or to a tricycle by means of the holes in the head of the spring C and the clamp D, with the fulcrum *d* between the flat spring C and the backbone or other part. This fulcrum and clamp are placed a sufficient distance back from the front end of the spring C to give the rider the desired amount of elasticity; but it will generally be forward of the center. The greater weight of the rider will rest on the rear end of the cover or seat, and consequently bear down on the rear end of this spring C. This construction gives any desired elasticity, and in riding, when meeting an obstruction or anything occurs to jar or jolt the rider so as to depress the spring C, the rear end alone is depressed, and in so doing the entire cover and upper end of the spring *e* are drawn backward, and by said operation the rider also carried backward, and his center of gravity at the same time carried backward from the center of the forward wheel of his machine, as well as being brought nearer the surface on which he is riding. As the spring returns to its normal condition, it does not

pass by its initial point, but only reaches it and stops.

Having fully described my invention and its operations, what I claim as new, and desire to
5 secure by Letters Patent of the United States, is—

1. In a saddle for a bicycle or tricycle, the combination of the movable fulcrum *d*, with the spring C, supported near its middle by
10 said fulcrum, and its front end attached to the front end of the perch or backbone, and rear end to the frame of back end of seat, all as above set forth, and substantially as described.

2. The spring *e*, rigidly attached to the clamp E, connecting and in combination with the
15 front ends of the spring C and seat to the saddle, all as above set forth, and substantially as described.

3. The combination of the flat spring C, fulcrum *d*, clamp E, coil-spring *e*, frame F, and
20 cover or seat G, for the purposes above set forth, and all substantially as described.

ARTHUR L. GARFORD.

Witnesses:

W. L. FAY,
ALLIE E. BRUCE.