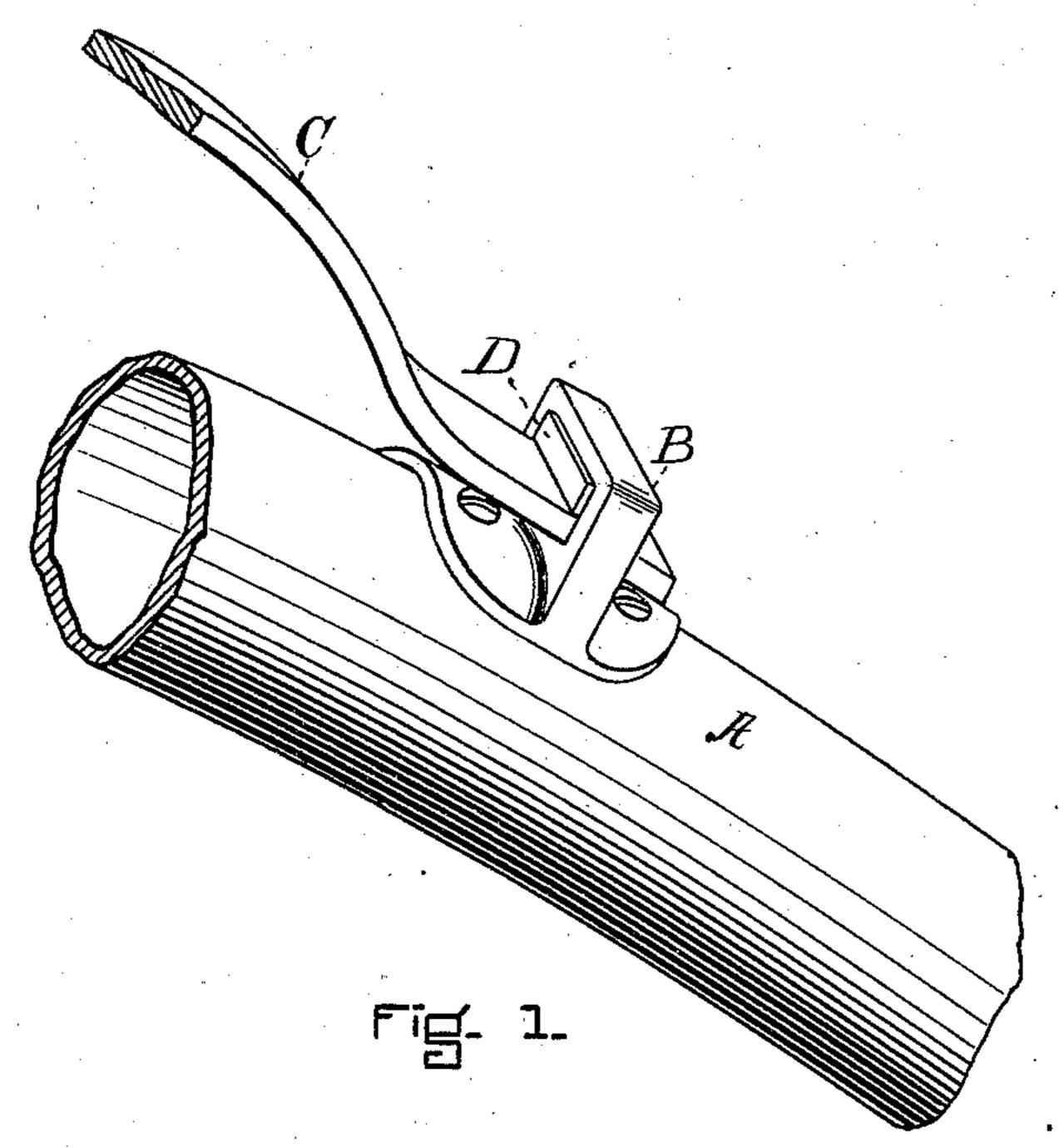
(No Model.)

## J. KNOUS.

## VELOCIPEDE SPRING CLIP.

No. 311,188.

Patented Jan. 27, 1885.



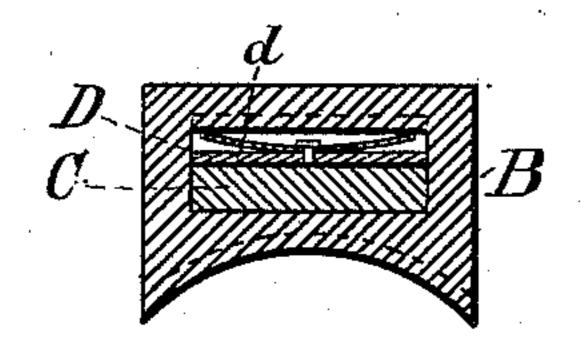


Fig. 2.

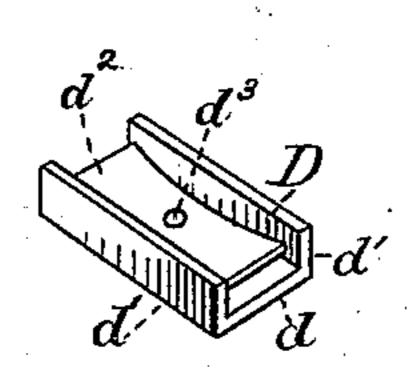


FIG. 3

WITNESSES.

E. P. J. Morton.

H. Fisker

John Knows
By Charles E. Ran
all

## United States Patent Office.

JOHN KNOUS, OF HARTFORD, CONNECTICUT, ASSIGNOR TO THE POPE MAN-UFACTURING COMPANY, OF SAME PLACE.

## VELOCIPEDE-SPRING CLIP.

SPECIFICATION forming part of Letters Patent No. 311,188, dated January 27, 1885.

Application filed December 8, 1884. (No model.)

To all whom it may concern:

Be it known that I, John Knous, of the city of Hartford, in the State of Connecticut, have invented certain new and useful Improvements in Velocipede-Spring Clips, of which

the following is a specification.

My invention consists, essentially, in the placing of a metallic spring between the saddle-spring on one side and the spring-clip on the other in a velocipede to prevent rattle and superfluous motion, and in certain combinations herein set forth; and the nature of my improvements will be apparent from the following description and the drawings, in which—

Figure 1 represents a portion of a perch or frame of a velocipede and a portion of a saddle-spring, and devices embodying my improvements in one form in half-perspective. Fig. 2 shows a cross-section through a part of the same, and Fig. 3 shows certain details to

be described.

A is the perch of a bicycle, or a portion of the frame of a velocipede. B is, in general 25 form, what is known as a "sliding springclip" secured to said perch or frame. C is a saddle or seat spring having one end tapered and curved to the smaller portion substantially parallel with the upper side of the perch 30 A. D is a metallic spring block or case having one side, d, about as long as the saddlespring C is wide where it passes through the clip, and about as wide inside as the clip B is. From its side d rises two parallel sides, d' d', 35 at right angles to it, and near this is a small metallic spring or piece of bent steel, d2, which for convenience may be secured in a springblock, D, by means of a rivet,  $d^3$ , or other-

The operation of my improvements is as fol-40 lows: When the clip B is secured in position on the perch A and it is desired to combine the spring with it, the spring-block D is inserted first in the opening in the clip, with its small metallic spring  $d^2$  upward, and then the 45 saddle-spring C is forced into place between the spring-block D and the lower side of the opening in the clip B. The yielding of the spring  $d^2$  permits the sides d' to rise about the two sides of the clip and leave room for the 50 saddle-spring to be entered, while the resiliency of the spring  $d^2$  forces the side d of the spring-block D against the surface of the saddle-spring C with a constant gentle pressure, sufficient to prevent rattle and to take up 55 for wear.

It is obvious that modifications may be made in the forms and arrangements of these devices without departing from the substance of my invention, and I do not mean to limit my- 6c self to the precise forms and construction herein described.

I claim as new and of my invention—

1. In a velocipede-saddle-spring clip, a metallic spring constructed and adapted to oper- 65 ate essentially as set forth.

2. A spring-block, D, having sides d d' d', and spring  $d^2$ , constructed and adapted to be combined with a velocipede-spring clip, substantially as set forth.

3. The combination of saddle-spring C, clip B, and the metallic spring  $d^2$ , with means for holding the latter in position, essentially as set forth.

JNO. KNOUS.

Witnesses:

F. E. BELDEN, A. J. WENES.