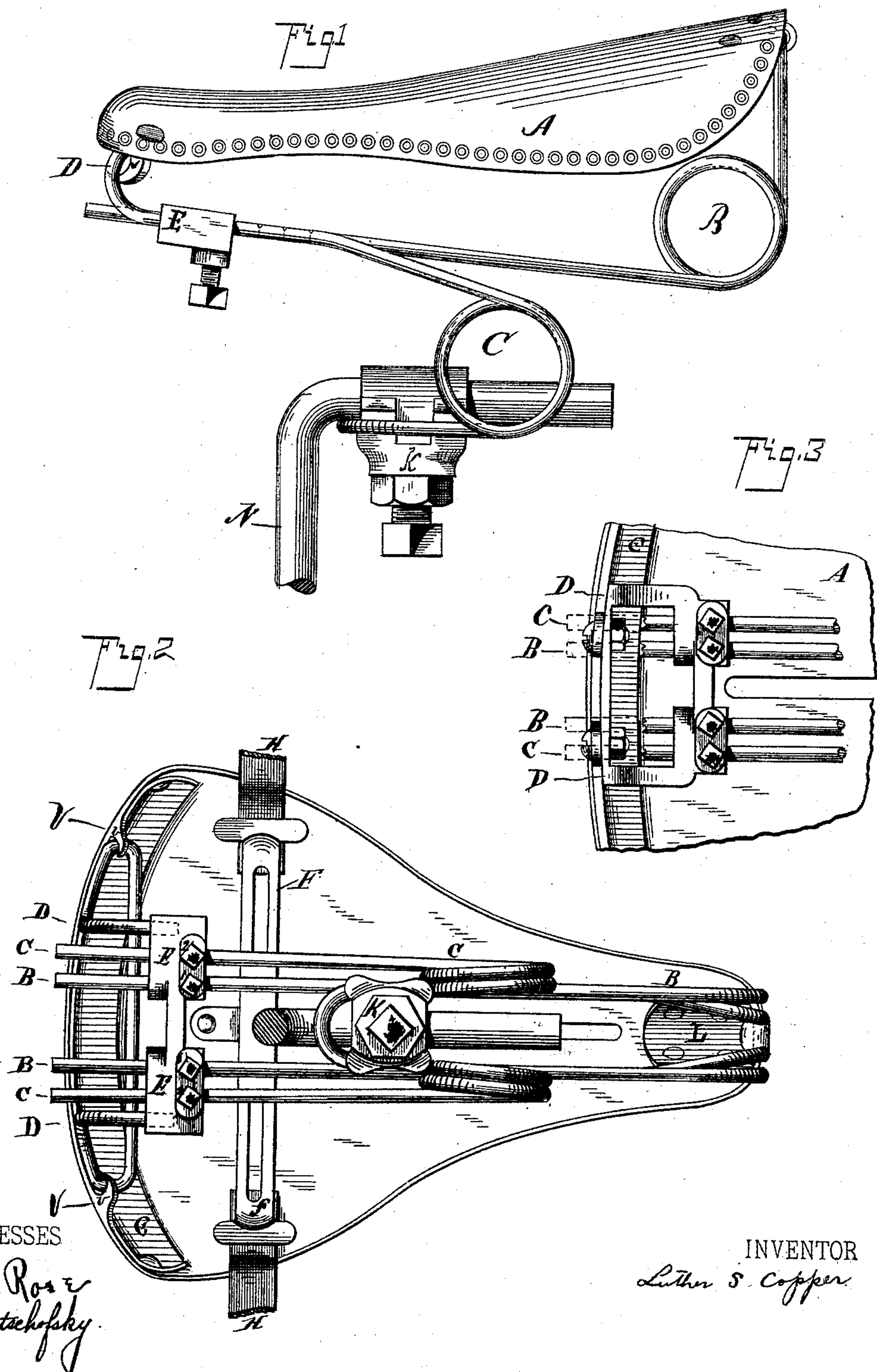


(No Model.)

L. S. COPPER.
SADDLE FOR BICYCLES.

No. 448,774.

Patented Mar. 24, 1891.



WITNESSES

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SADDLE FOR BICYCLES.

SPECIFICATION forming part of Letters Patent No. 448,774, dated March 24, 1891.

Application filed September 19, 1890. Serial No. 365,562. (No model.)

To all whom it may concern:

Be it known, that I, LUTHER S. COPPER, a citizen of the United States of America, and a resident of the city of Cleveland, in the county of Cuyahoga, and in the State of Ohio, have invented new and useful Improvements in Bicycle-Saddles, which are set forth in the following specification.

This invention relates to saddles or seats for bicycles, tricycles, or velocipedes; and it consists of leathern seat supplied with means for lateral tensioning and peculiar sliding cantle or rear plate, and with springs and spring-holding plate for gaining a better method of elastic action, and for increased comfort and convenience of person using, in combination, as hereinafter described and claimed.

Figure 1 is a side view; Fig. 2, an under side view; Fig. 3, an under side view of spring connecting-plate.

A is a leathern seat secured to spring B and to spring D by means of hook-plates L and G, and is provided with lateral tensioning-plate F.

B is a wire, with raised end to engage hook L, having coils for spring purposes, (or not with coils when stiffness is required,) and with long arms reaching full length of seat A, engaging plate E and secured to position by set-screws 1 1. The advantage gained is in tensioning seat A and a forward elastic action to compensate the backward elastic action of spring C.

D is a short piece of wire folded, having straight cross-bar, sloping sides, and free ends to engage in sockets in plate E. The purposes of sloped sides are to engage hooks of plate G and to allow hooked plate G to slide back and forward in case of unequal stretching of sides of leathern seat.

C is a wire spring with loop to engage clamp of seat-bar of machine, having coils and two long arms reaching backward, passing through holes in plate E and secured by set-screws 2 2. Spring C has a downward backward action and is made of heavier wire than spring B, and is marked or scaled systematically to note to the rider the proper po-

sition for plate E to best suit his weight, and the same spring is thereby sufficient for the light or heavy man.

E is a connecting-plate, pierced with holes for springs B and C and provided with sockets for spring D, and with set-screws for securing firmly springs B and C. It is also made with upward extending arms or bars to take the place of spring D, as is shown in Fig. 3; but the plan of three (3) springs, as described and shown, is deemed preferable.

F is a brace riveted to middle of seat and extending laterally, having a drop in form from place of riveting to avoid contact with rider when leather is pressed down. Over the ends of brace-plate F are drawn straps H H, which are secured to leather seat and buckle together in a way to take up any lateral sag of seat.

G is a cantle or rear plate for securing seat A to spring D. It is supplied with hooks *vv*, which engage the spring on the outside slants and slide to accommodate unequal longitudinal stretch of leathern seat A.

Having described my invention, I claim—

1. In a saddle for bicycles, tricycles, or velocipedes, in combination, a leathern seat A, supplied with plate F, and straps H H, which buckle together under middle of plate F and serve to tension seat A laterally.

2. In a saddle for bicycles, tricycles, and velocipedes, in combination, a leathern seat A, supplied with plate G, having hooks to engage sloping arms of spring D and to move back or forward, if required.

3. In a saddle for bicycles, tricycles, or velocipedes, in combination, spring B, with or without coil, having raised end for the support of the front end of leathern seat A, and with arms reaching full length thereof and passing through holes in plate E, and secured at proper place by set-screws 1 1, and serving for tensioning seat A to give elasticity thereto and at the same time to allow of a forward elastic action to compensate the backward tilt of spring C.

4. In a saddle for bicycles, tricycles, and velocipedes, in combination, spring D, the ends of which engage in sockets in plate E, hav-

ing sloping arms to engage hooks of plate G and to allow a movement thereof to take up unequal stretching of sides of leathern seat A.

- 5 5. In a saddle for bicycles, tricycles, or velocipedes, in combination, spring C, formed with loops to engage bar-clamp *k*, having coils and long arms reaching backward, passing through holes in plate E, and secured therein
10 by set-screws 2 2, the arms permitting of forward or backward shifting of plate E, and one of the arms being systematically scaled

to indicate the position of plate E for different weights.

6. In a saddle for bicycles, tricycles, or velocipedes, in combination, plate E, having holes to engage springs B and C, with set-screws 1 1 2 2 for securing them, and with sockets for engaging spring D, for purposes and substantially as described.

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Witnesses:

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