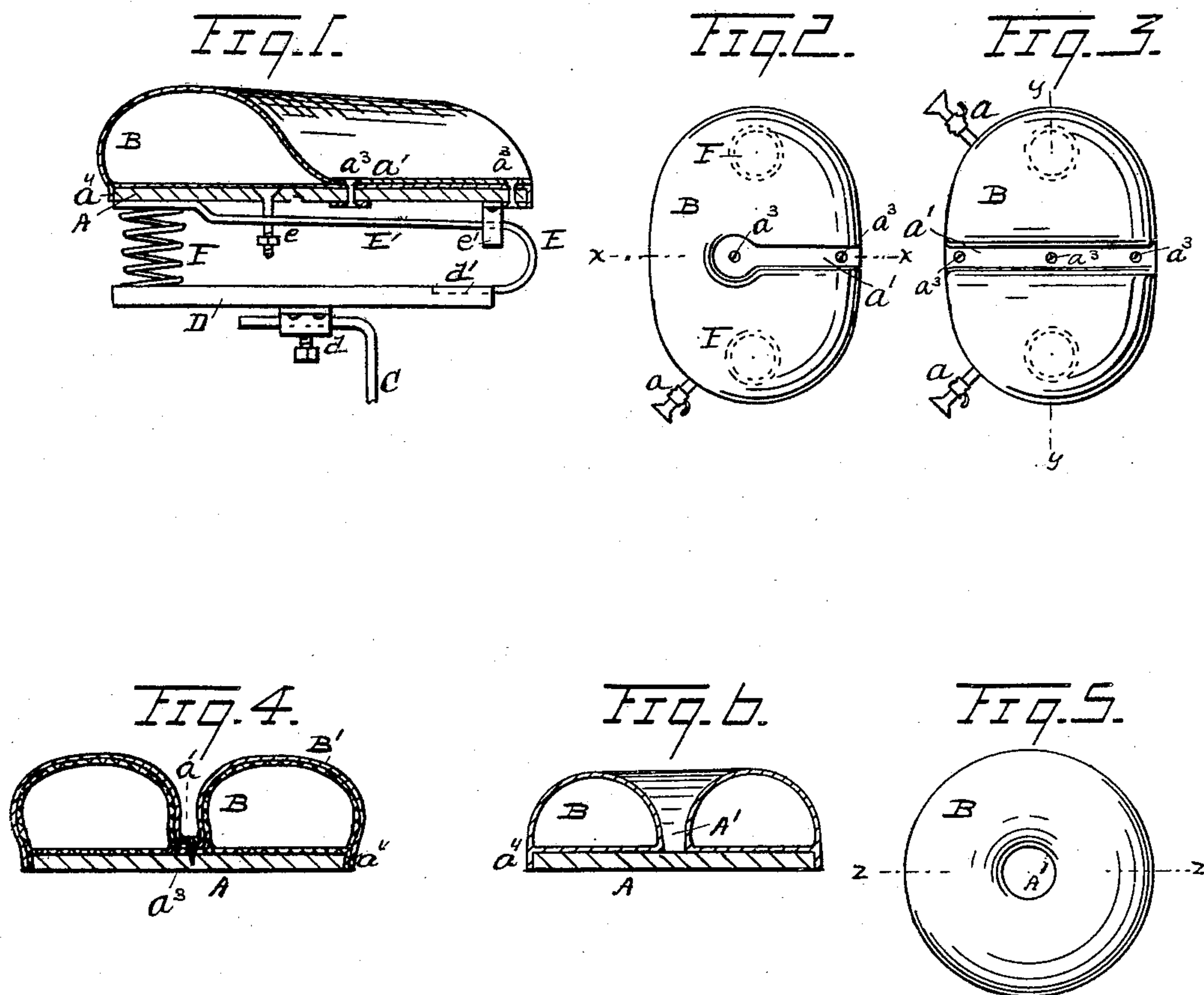


(No Model.)

T. H. HICKS.
SEAT.

No. 484,367.

Patented Oct. 11, 1892.



Witnesses
John Schuman.
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Inventor
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By his Attorney
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UNITED STATES PATENT OFFICE.

THOMAS H. HICKS, OF DETROIT, MICHIGAN, ASSIGNOR OF ONE-HALF TO
GEORGE F. CASE, OF SAME PLACE.

SEAT.

SPECIFICATION forming part of Letters Patent No. 484,367, dated October 11, 1892.

Application filed August 17, 1891. Serial No. 402,863. (No model.)

To all whom it may concern:

Be it known that I, THOMAS H. HICKS, a subject of the Queen of Great Britain, residing at Detroit, county of Wayne, State of Michigan, have invented a certain new and useful Improvement in Seats; and I declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to certain new and useful improvements in seats; and it consists of the devices and appliances hereinafter described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a vertical section illustrating my invention on the line $x x$, Fig. 2. Fig. 2 is a plan view. Fig. 3 is a plan view of a modification. Fig. 4 is a cross-section on the line $y y$, Fig. 3. Fig. 5 is another modification showing an opening in the center of the cushion. Fig. 6 is a section of the same on the line $z z$.

My invention is designed to provide a cushion-seat which may be applied to horse-vehicles, steam-cars, chairs, &c., and more particularly to tricycles and bicycles by suitable modifications in form and arrangement.

Its object is to obtain a cushion-seat that will readily adjust itself to the individual shape of each user and at the same time prevent injurious pressure against the perinæum, which is a common cause of rectal, bladder, and genital troubles in both sexes, especially when the user of the seat sits continuously thereupon for a long time, as one is apt to do when riding a Safety or other bicycle wheel.

My invention is also intended to secure greater ease in riding, jolting being thereby largely prevented.

Accordingly A represents the base of the cushion, and B the inflatable cushion located thereupon. The cushion B is preferably made of rubber, and may, if preferred, be provided with a covering of any suitable material, as of leather, canvas, or cloth, (indicated at B' in Fig. 4.) The cushion B is secured in any

desired manner upon the base A, which is formed of any suitable material, preferably inelastic, as of wood, the construction being such as to form an air-chamber above said base, which may be inflated. By the provision of an inelastic base the flexibility of the cushion is confined mainly to the upper portion thereof, so as to adjust itself and conform to the form of the rider, the pressure of the air in the cushion being thus confined so as to be exerted upward against the rider. The cushion is provided with one or more tubes or nozzles a for the purpose of inflation. I prefer to provide the top of the cushion with a fissure or depression a' , formed in any desired manner, the fissure extending from the front of the cushion rearward to any desired extent. This fissure prevents upward pressure on the perinæum when a person sits thereupon. This fissure may be formed by securing a portion of the top of the cushion intermediate the sides down firmly upon the lower portion thereof, allowing the cushion to be inflated at each side thereof. The fissure may extend only part way toward the rear of the cushion, as shown in Figs. 1 and 2, or it may pass to the rearward limit of the cushion dividing it into two separate air-chambers, as shown in Figs. 3 and 4; but I prefer to extend it only part way toward the rear of the cushion, as shown in Figs. 1 and 2. Such a form relieves the perinæum and also furnishes support at the lower end of the spine, which makes a more comfortable seat.

As shown in Figs. 5 and 6, a depression may be made at the center of the cushion. This depression may be made by forming a central opening in the cushion, as shown at A'. The adjacent portions of the cushion which forms the floor or lower boundary of the fissure may have eyelets, as at a^3 , for the purpose of securing the cushion and its covering to the support for the cushion; or this floor may be dispensed with, an opening being provided in place thereof, as in Figs. 5 and 6. The cushion may also have a rubber lip a^4 attached to it for the purpose of securing the cushion to the support A.

C denotes the saddle or seat support of a bicycle. D denotes a seat-bed engaged with

said support and preferably leaving an adjustable connection therewith, as shown at *d*.

E denotes a spring preferably made of flat metal bent into the shape shown in Fig. 1, said spring being engaged at the forward end to the bed D, as shown at *d'*, the opposite arm *E'* of the spring supporting the seat, the base A of the cushion being secured thereto in any proper manner, as by a bolt *e* passed through said base and loosely through said arm. A loop *e'*, of suitable material, also may engage said arm to said seat, providing for a movable engagement the one with the other. A spring F, moreover, is located between the base A of the cushion and the seat-bed D at the rear end thereof. It will be seen that this construction forms a very sensitive and efficient elastic cushion, bearing the rider with great ease and adapting itself to any form of the person resting upon it.

With the provision of the spring F at the rear of the seat it is obvious that the spring E may be made more elastic than if the strain upon the seat came solely upon the bend at the forward end thereof.

I design to employ one or more of the springs F. By locating one at each side of the cushion,

as indicated in dotted lines, Fig. 2, the seat is effectually supported laterally.

What I claim as my invention is—

1. In a cushion-seat, the combination of the bed D, the spring E, engaged with one end thereof, the base A, engaged with said spring, an inflatable cushion located upon said base, and a spring F, located between said bed and said base at the end of the bed opposite its union with the spring E, substantially as described.

2. In a cushion-seat, the combination of the inelastic base A, an inflatable cushion located thereupon, a bed D, having means of attachment to a seat-support, a spring E, located between said bed and base and having a movable connection with said base, and a spring F, located between said bed and said base at their rear extremities, substantially as described.

In testimony whereof I sign this specification in the presence of two witnesses.

THOMAS H. HICKS.

Witnesses:

N. S. WRIGHT,
JOHN F. MILLER.