No. 663,409. Patented Dec. 11, 1900.

T. E. BECK.

VELOCIPEDE SADDLE.

(Application filed Dec. 2, 1897.)

(No Model.)

Fig. 1.

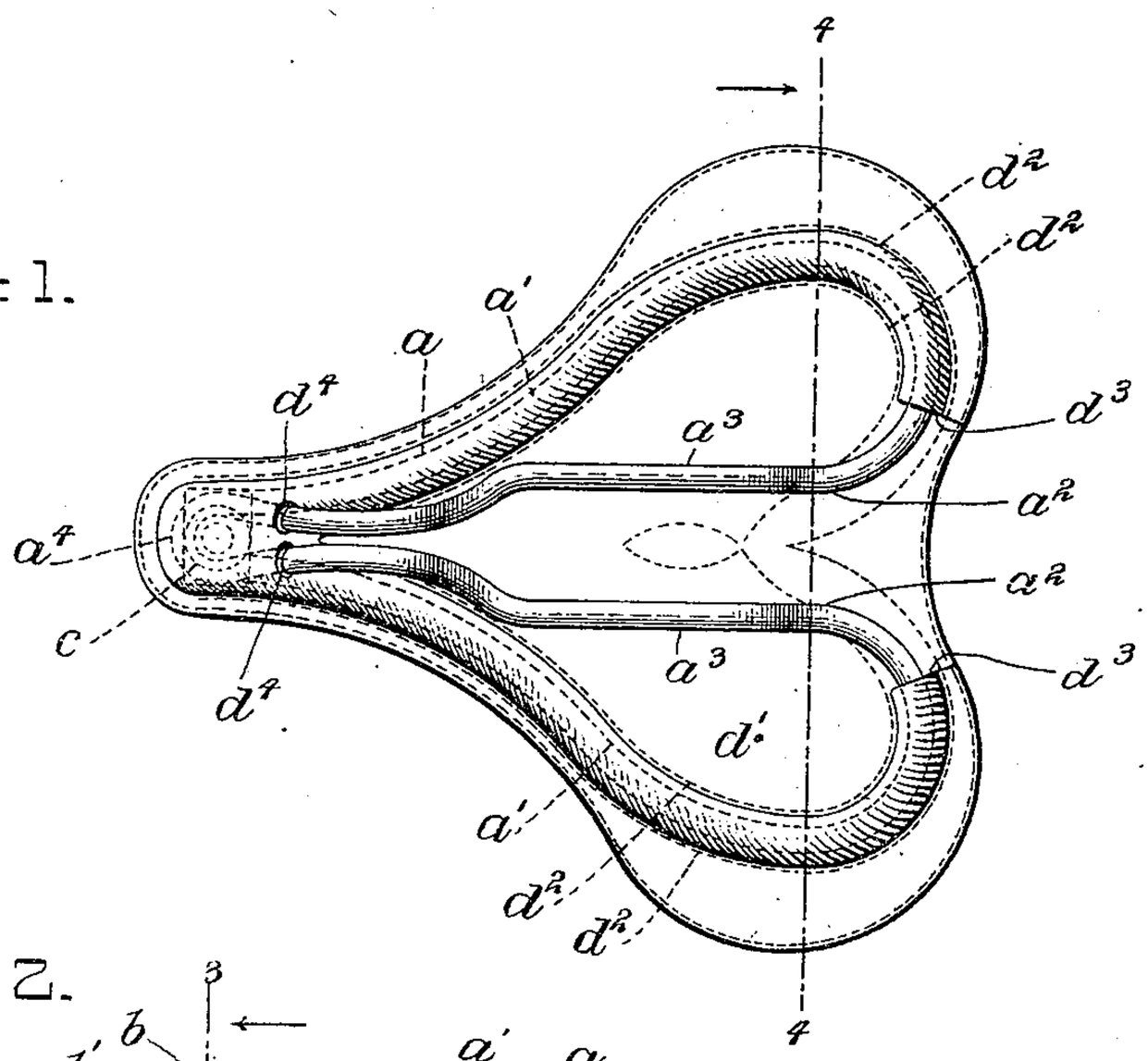


Fig. 2.

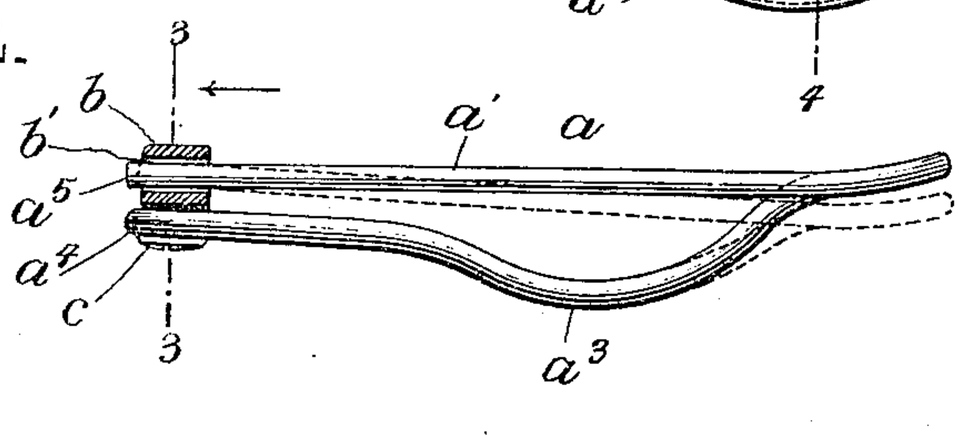


Fig. 3.

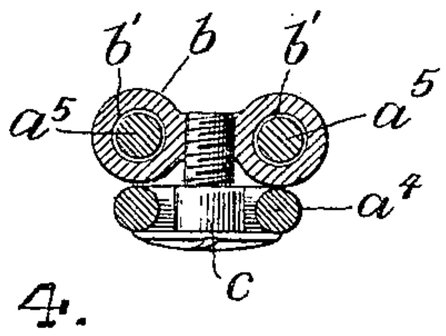
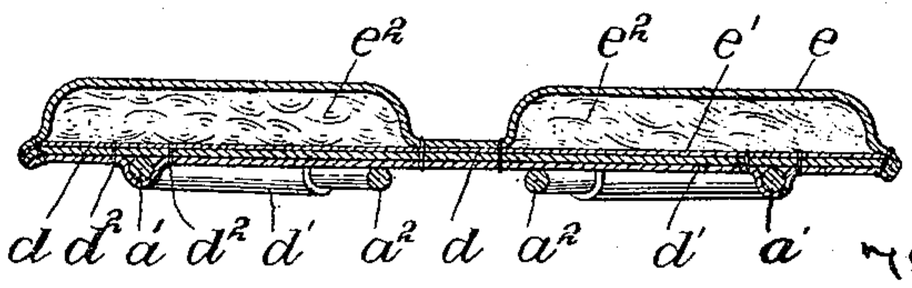


Fig. 4.



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VELOCIPEDE-SADDLE.

SPECIFICATION forming part of Letters Patent No. 663,409, dated December 11, 1900.

Application filed December 2, 1897. Serial No. 660,500. (No model.)

To all whom it may concern:

Be it known that I, THEODORE E. BECK, a citizen of the United States, and a resident of Newark, Essex county, State of New Jersey, have invented certain new and useful Improvements in Velocipede-Saddles, of which the following description, taking in connection with the drawings herewith accompanying, is a specification.

This invention consists of certain improvements in the construction of velocipede-saddles of a character like that forming the subject-matter of my Patent No. 617,140, dated January 3, 1899, in which the saddle frame or spring comprises an upper portion for the support of the seat and a lower connected portion for attachment with a clamp or other support. In a spring of such construction, where the upper and lower portions connect at the pommel and cantle ends of the saddle and the lower portion is supported in rigid connection with a saddle-post by a clamp or other attachment, the cantle end of the upper portion when depressed under the weight of the rider moves in a slight arc, as described, from the point of connection of the lower portion with its clamp, and thereby causes a longitudinal movement of the upper portion of the spring, which is sufficient, as has been found in practice, to break the connection between the upper and lower portions of the spring when such connection is a rigid one. Such breakage is most liable to occur when a wheel is passing over a rough or uneven portion of the road and the weight of the rider is thrown upon the saddle with increased force.

Having in mind the above facts, it has been one of the objects of my present invention to provide a means for uniting the upper and lower portions of the spring at the pommel in a manner to allow longitudinal movement of one portion relative to the other, whereby possibility of breakage or disconnection of the parts at such point is obviated and the saddle rendered more yielding and comfortable in riding.

Other features of my present invention will be hereinafter referred to in detail.

Referring to the drawings, Figure 1 is a bottom view of a saddle embodying my invention. Fig. 2 is a side view of the saddle-spring, with the seat removed and the pommel-block in section, also showing in dotted lines the position assumed by the spring under the weight of the rider. Fig. 3 is a cross-section of the spring and pommel-block, taken through line 3 3 of Fig. 2; and Fig. 4 is a cross-section of the saddle, taken through line 4 4 of Fig. 1.

To explain in detail, a denotes the spring, which in the present instance illustrated forms the frame upon which the seat portion of the saddle is secured. This spring a, as herein shown, is formed with an upper portion comprising two limbs a' a', which are bent in a desired form between the pommel and cantle to substantially conform to the outline of the seat for the support of the latter. From the cantle the said upper limbs extend forward a short distance in the same plane as the outer portion of the limbs and between the latter, as at a^2 a^2, to serve as a central or intermediate support for the seat. From such point the said limbs are each bent downward at opposite sides of the longitudinal center of the saddle for engagement by a clamp or support and then extended forward to the pommel for attachment at such point with the upper portion or limbs of the spring. The two limbs forming the lower portion of the spring are each formed with a part thereof extending approximately parallel with each other, as at a^3 a^3, for the engagement of the clamp, which part in side elevation is curved, as shown in Fig. 2, to permit a change in the inclination of the saddle.

The spring a, as herein shown, is formed of one piece, which in giving the spring its form, as described, is bent or doubled at the center, as at a^4, to form a loop or eye at the pommel end of the lower portion of the spring, while its two ends a^5 a^5 terminate at the pommel end of the upper portion of the spring. The said upper and lower portions of the spring are united at the pommel end of the saddle in a manner as follows: A block or plate b, having two openings b' b', in which the upper free ends a^5 a^5 of the spring are loosely fitted, so as to be capable of longitudinal movement, is secured in fixed connection with the lower portion of the spring by means of a screw c, which latter passes through the said loop a^4 in the spring, with its head en-

gaging the lower side of the same and its threaded end connecting with the block *b* within a screw-threaded opening therein, as clearly shown in Fig. 3. By this means the upper and lower portions of the spring are united at the pommel in such manner as to be properly supported relatively to each other and yet allow a longitudinal movement of the upper limbs relative to the lower at such point of connection. Such movement as above referred to is necessary, for the reason that the lower portion of the spring being supported in rigid connection with a saddle-clamp the upper portion when depressed at the cantle end under the weight of the rider has a slight longitudinal movement, and if the connection between the upper and lower portions at the pommel were a rigid one a breakage or disconnection between the parts would be liable to result.

Another feature of my invention, resulting from the fact that the ends a^5 a^5 of the upper limbs of the spring are loosely supported in the openings in the block *b*, as described, is that as the opposite sides of the saddle are depressed under the movements of the rider the supporting-limbs a' a' of the spring have a natural tendency to turn or rock, which movement is possible by reason of their loose connection at the pommel, as described. Such loose connection of the upper seat-supporting limbs a' a' at the pommel, whereby they may yield in the different directions, as described, allows the saddle to readily conform to the different movements of the rider.

Having illustrated and described one practical means for securing connection between the upper and lower portions of the spring at the pommel for the purpose described, any other suitable means for securing a like connection between the parts may be employed without departure from my invention.

The seat portion of the saddle, as herein illustrated, is formed and attached upon the spring in a manner as follows: A piece or "flap" *d*, of stiff leather or other suitable material having the general outline of the desired seat, is placed upon the upper limbs a' a' of the spring as a support for the padded portions of the seat, to be hereinafter described. A second flap d', of flexible leather or other material, is then placed below the upper limbs and a portion of the lower limbs at the pommel end thereof and secured to the upper flap, so as to inclose such parts of the spring as lie between the two flaps by lines of stitching d^2 d^2, extending at opposite sides of the limbs and around the pommel end of the same, as is clearly shown in Figs. 1 and 4. The lower flap d' is provided with two slits or openings d^3 d^3 at the cantle end of the saddle, through which the opposite upper limbs of the spring pass, and also with openings d^4 d^4 adjacent to the pommel end, through which the opposite lower limbs pass at a point back from the head of the clamping-screw *c*, as shown in Fig. 1. The lower limbs of the spring between the pommel and cantle thus lie below and outside of the lower flap d', but the latter being extended over the under side of the said lower limbs at the pommel end of the same to cover the screw *c* or whatever other means are employed for securing connection between the upper and lower portions of the spring and, being secured to the upper flap, as described, serves as an additional means of securing together said upper and lower portions of the spring at such point, prevents the said screw from becoming loosened or disconnected from its engaging parts, and secures a more attractive appearance to the saddle.

The upper flap *d* might be adapted to serve as the seat portion of the saddle, if so desired, or a padded form of seat can be secured upon the same. The construction of the seat portion herein illustrated is the same as that shown and described in my said Patent No. 617,140 and is as follows: Two pieces or flaps *e* and e', of leather or other suitable material having the general outline of the seat and having between them cushions e^2 e^2, of felt or other similar material, are placed upon the flap *d* and stitched or otherwise secured at their outer edge to the edge of the flaps *d* and d', which contain a portion of the spring therebetween, as described. By this means the several parts entering into the construction of the saddle are all so supported and united as to practically form but one piece.

Having thus set forth my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a velocipede-saddle, a spring or frame comprising a seat-supporting portion having two independent limbs each extending under one side of the seat and conforming to the outer line thereof, and a second portion connected with said seat-supporting portion and adapted for engagement by a clamp or support, a seat non-rigid between the rear portions of said two independent limbs, a clamp for fastening said second portion rigidly to the pommel of the seat, and non-clamping means for supporting the ends of said two independent limbs, whereby the front ends of said limbs are loosely supported.

2. In a velocipede-saddle, a spring or frame comprising a seat-supporting portion having two independent limbs each extending under one side of the seat and conforming to the outer line thereof, and a second portion connected with said seat-supporting portion and adapted for engagement by a clamp or support, a seat non-rigid between the rear portions of said two independent limbs, a clamp for fastening said second portion rigidly to the pommel of the seat, and having sockets therein to support at the pommel the front ends of said two independent limbs, wherein said limbs are free to move in said sockets independently of each other.

3. In a velocipede-saddle non-rigid at the middle of the cantle, the combination with a

suitable seat having a cantle flexible at its middle, of a spring having an upper portion comprising two independently-movable limbs whereon the respective sides of the seat rest, and a lower portion connected with said upper portion at the cantle end and adapted to be engaged by a clamp or support, and a support at the pommel constituting a permanently loose connection for the upper portion of the spring, to allow the ends of the limbs of said upper portion to turn or rock independently of each other and a rigid connection between said lower portion and said seat at the pommel.

4. In a velocipede-saddle, the combination, with a suitable seat, of a spring or frame bent at its middle to form an eye, having an upper portion comprising two limbs for supporting the seat, and a lower portion bent down from the cantle for engagement by a clamp or support, and then extended forward to the pommel, and a block secured to the lower portion of the spring at the pommel by means of a bolt or screw passing through said eye, and provided with openings into which the free ends of the upper limbs are loosely received, substantially as and for the purpose set forth.

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Witnesses:
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