

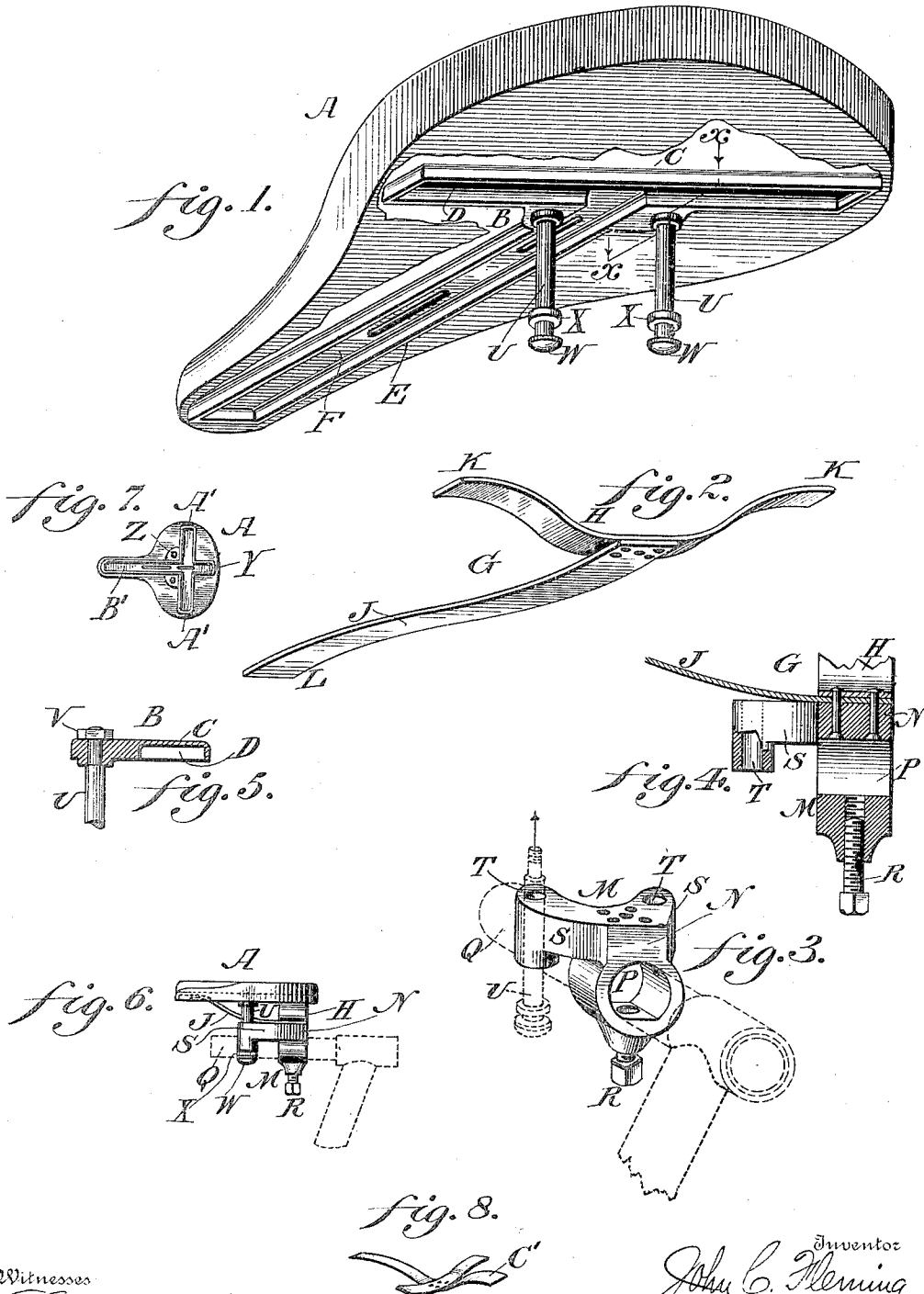
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Patented Jan. 2, 1900.

J. C. FLEMING.
BICYCLE SADDLE.

(Application filed Feb. 18, 1899.)

(No Model.)



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UNITED STATES PATENT OFFICE.

JOHN C. FLEMING, OF PHILADELPHIA, PENNSYLVANIA.

BICYCLE-SADDLE.

SPECIFICATION forming part of Letters Patent No. 640,373, dated January 2, 1900.

Application filed February 18, 1899. Serial No. 706,022. (No model.)

To all whom it may concern:

Be it known that I, JOHN C. FLEMING, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Bicycle-Saddles, which improvement is fully set forth in the following specification and accompanying drawings.

My invention consists of an improved construction of bicycle-saddle which can be readily attached to existing bicycle-frames without necessitating any change in the latter, provision being made by employment of a channeled or recessed T-shaped frame forming a part of the saddle proper, in conjunction with a T-shaped spring mounted on a suitable base attached to the bicycle-frame for insuring great freedom of movement, and thus relieving the body of the rider from the jars and concussions incident to the propulsion of the vehicle.

It further consists of novel details of construction, all as will be hereinafter fully set forth and particularly pointed out in the claims.

Figure 1 represents a perspective view of a bicycle-saddle embodying my invention, showing especially the under portion thereof. Fig. 2 represents a perspective view of a supporting-spring employed, the same being shown in detached position. Fig. 3 represents a perspective view of a frame or base adapted to be mounted upon a bicycle, said frame supporting said spring and carrying fastening devices common thereto and to the saddle. Fig. 4 represents a sectional view of a portion of the base seen in Fig. 3. Fig. 5 represents a section on line *xx*, Fig. 1. Fig. 6 represents, on a reduced scale, a side elevation, showing the saddle and its adjuncts in assembled position. Fig. 7 represents a bottom plan view of a modified form of T-shaped frame, a portion of said frame being extended toward the rear of the saddle. Fig. 8 represents a perspective view of a spring adapted to be used in conjunction with the frame and saddle seen in Fig. 7.

Similar letters of reference indicate corresponding parts in the figures.

Referring to the drawings, A designates a bicycle-saddle, the same having suitably secured to the under portion thereof a T-shaped

frame B, the latter consisting of a transverse member C, having a channel or recess D therein, said member C being connected to the longitudinally-extending member E, which is provided with a channel or recess F.

G designates a T-shaped spring, the same having the lateral member H and the longitudinally-extending member J, the extremities K of said lateral member being adapted to support the saddle and be guided in the channel or recess D, while the extremity L of the member J of said spring is adapted to be guided in the recess F when the parts are assembled.

M designates a lower frame or base, the same consisting of a body portion N, having an opening P therein, through which passes the portion Q of the bicycle-frame, said base M being held in position relative thereto by means of a set-screw R or other analogous fastening device.

S designates arms or bifurcations extending from the body portion N of the base M, said arms having openings T therethrough, in which are located and guided the rods or stems U, the latter having their upper extremities passing through the frame B and held in position relative to the latter by means of a shoulder and a nut V or similar fastening device, as will be understood from Fig. 5. The spring G is secured to the frame M by means of rivets or other suitable fastening devices, as will be understood from Fig. 4.

The operation is as follows: The parts are first assembled by securing the spring G and the frame or base M in substantially the manner indicated in Fig. 4, it being of course understood that the longitudinal member J of the spring points in the direction of the front wheel of the bicycle, the member H extending transversely, after which the saddle containing the T-shaped frame B is placed in position above the spring, said saddle being supported upon the extremities K and L of the spring G, the parts now appearing in their assembled position, as indicated in Fig. 6. The guides or rods U having been placed in position, it will be evident that the saddle will be held under all conditions in the proper relative position to the spring G and its adjuncts.

It will be apparent that by guiding the

rods U as described I permit a free action of the spring G and prevent a swinging motion of the saddle, which occurs in spring-saddles of the usual construction, said rods, however, permitting a free up-and-down movement of the saddle. In order to prevent any jar or concussion in the act of riding, I interpose between the heads W of the rods U and the under side of the arms S the washers X, of rubber or similar material, the effect of which is evident.

In Fig. 7 I have shown a modified form of T-shaped frame, the latter having the recessed extension Y toward the rear thereof, whereby the frame which is now designated as Z becomes of the shape of a cross, having the lateral recessed members A' and the longitudinal recessed member B', which extends toward the front wheel of the bicycle when the saddle is in place.

In Fig. 8 I show a form of spring especially applicable to the frame Z, said spring being of substantially the same contour as the spring G, but having the member J extended rearwardly, as indicated at C', which latter rests upon and is guided in the recessed portion Y of the frame Z when the parts are assembled, wherefrom it will be seen that the saddle seen in Fig. 7 has four points of support, which latter form may be desirable in some instances where extra or additional strength is needed.

It will be seen from the foregoing that by my invention I have produced a saddle which can be cheaply manufactured and assembled and one in which great resiliency is attained under all conditions, whereby the body of the rider is free from the injurious jar and concussion which ordinarily take place in saddles of the usual construction.

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

1. The combination of a bicycle-saddle, a base adapted to be secured to a bicycle-frame, a spring having lateral arms secured thereto, arms projecting from said base, said spring

being supported on the latter, a channeled T-shaped frame mounted upon the ends of said spring and rods depending from said T-shaped frame, and passing freely through openings in the arms of said base and heads on said rods.

2. The combination of a bicycle-saddle, a base adapted to be secured to a bicycle-frame, a spring having lateral arms secured thereto, arms projecting from said base, said spring being supported on the latter, a channeled T-shaped frame mounted upon the ends of said spring and rods depending from said T-shaped frame, and passing freely through openings in the arms of said base, heads on said rods and cushioning devices supported on said heads.

3. In a bicycle-saddle, a base adapted to be attached to a bicycle-frame, arms projecting from said base, openings in said arms, a spring having lateral and longitudinal arms, said spring being secured to said base at the junction of said arms, a saddle having a recessed frame secured to the under portion thereof, said frame resting upon the upwardly-deflected ends of said spring, and rods freely guided in said base, and having their upper ends secured in said frame.

4. In a bicycle-saddle, a base adapted to be attached to a bicycle-frame, arms projecting from said base, openings in said arms, a spring secured to said base, a saddle having a frame secured to its under portion, said spring supporting said frame and saddle, rods freely movable in the arms projecting from said base, said rods having a head at their lower portion, washers supported upon said heads, and a shoulder on the upper portion of said rods, and in contact with said frame, the upper extremity of said rods being threaded, passing through said frame and engaged by nuts or other fastening devices.

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