(No Model.) 2 Sheets—Sheet 1.

C. H. YOUNG.

BICYCLE SADDLE.

No. 589,521. Patented Sept. 7, 1897.

Fig. 1.

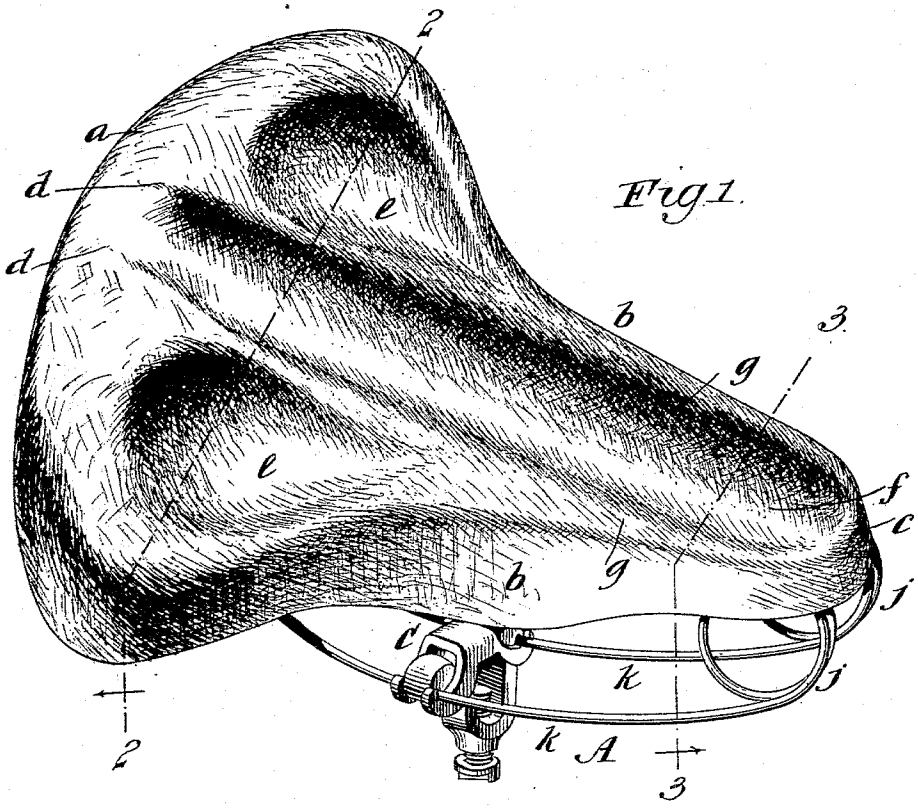


Fig. 2.

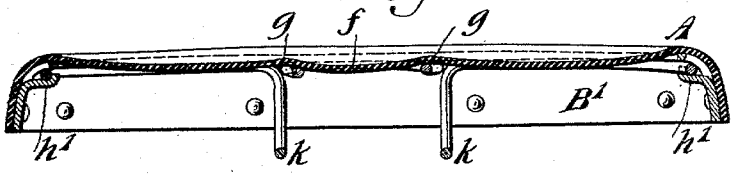
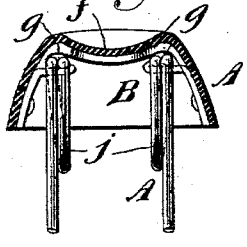


Fig. 3.



WITNESSES:

Paul Jehad

Q. M. Hopkins.

INVENTOR

C. H. Young.

BY

Munn & Co

ATTORNEYS.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

(No Model.)

2 Sheets—Sheet 2.

C. H. YOUNG.

BICYCLE SADDLE.

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Fig. 4.

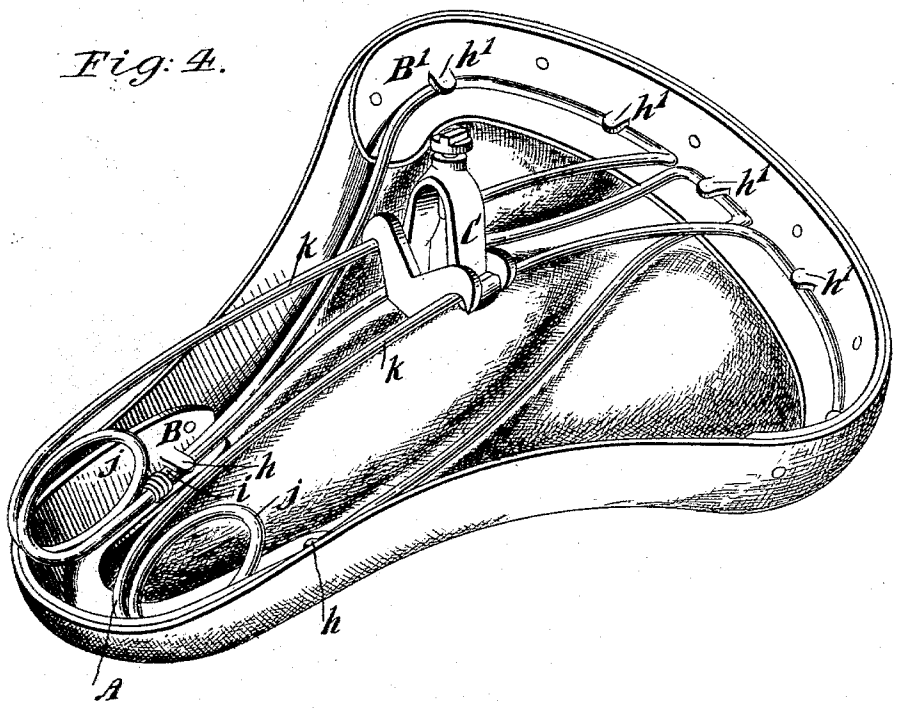
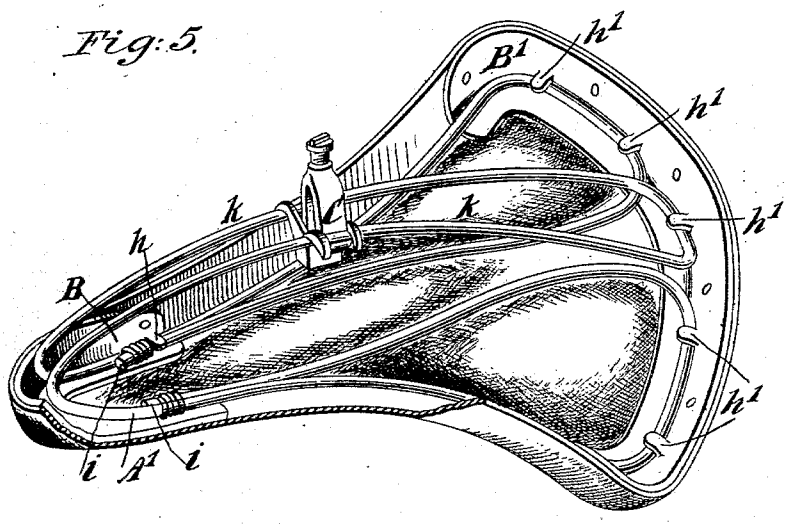


Fig. 5.



WITNESSES:

J. A. Rennie

G. M. Hopkins

INVENTOR

C. H. Young.

BY

Munn & Co

ATTORNEYS

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

CHARLES H. YOUNG, OF NEW YORK, N. Y.

BICYCLE-SADDLE.

SPECIFICATION forming part of Letters Patent No. 589,521, dated September 7, 1897.

Application filed December 30, 1895. Serial No. 573,782. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. YOUNG, of New York city, in the county and State of New York, have invented a new and Improved Bicycle-Saddle, of which the following is a full, clear, and exact description.

Bicycle-saddles as ordinarily constructed cause undue pressure in some regions, thereby rendering the rider liable to more or less serious injury, and, further, the ordinary saddle is liable to distortion in use, thereby increasing the difficulty.

The object of my invention is to provide a saddle which will conform to the parts which contact with it in such a way as to cause the surfaces which should naturally bear the weight of a rider to be supported, while other parts liable to injury are relieved from pressure.

My object is, further, to furnish a saddle-frame which will retain the saddle in its normal form.

The invention consists in the novel construction of the spring-frame, as will be hereinafter described, and pointed out in the claim.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a perspective view of my improved saddle, showing the upper surface. Fig. 2 is a transverse section taken on line 2 2 in Fig. 1. Fig. 3 is a transverse section taken on line 3 3 in Fig. 1. Fig. 4 is a perspective view showing the under surface of the saddle and the spring-support, and Fig. 5 is a perspective view of a modified form of saddle and spring.

My improved saddle may be made of leather or other flexible material, or of rigid material, and be supported upon a spring-frame hereinafter described.

I will proceed to describe my improved saddle, designating the conformation by terms suggested by the corresponding portions of the human body.

The saddle represents a transverse sacral curve *a*, and the right and left thigh curves *b b*, which merge posteriorly in the sacral curve *a* and conjoin anteriorly, forming the pommel *c*. The top surface of the saddle curves over the edge and merges into the side surfaces. The right and left thigh curves and surfaces *b b* join posteriorly the sacral curve *a* and conjoin anteriorly to form the pommel *c*. The cantle-ridge *d* extends over the sacral curve.

In the saddle is a longitudinal perineal depression *f*, extending from the end of the pommel rearward, having a gradually-increasing width to the center of the saddle, then decreasing and merging upward into the surface of the cantle-ridge, as shown at *d d*. The said perineal depression occupies the entire superior surface of the pommel and longitudinal center of the saddle corresponding to the convexity of the perineum. Bordering the depression *f* at the sides thereof are the perineal ridges *g g*, extending from the pommel *c* to a point *d* at the rear of the saddle, and to the right and left of said ridges are formed depressed buttock-surfaces *e e*, corresponding to the buttocks. The particular shape of the perineal depression is seen clearly in Fig. 4.

When the saddle is made of flexible material, such as leather, it is supported by a spring-frame A, preferably formed of a spring-steel wire or rod, which is held securely by the saddle-clamp, as shown, and the under surface of the saddle at the pommel is provided with a curved metal pommel-strip B, which is riveted to the leather portion of the saddle and provided with hooks *h*, which are bent over the forward portions of the spring-frame A, and at the rear of the saddle is secured a curved cantle-strip B′ which is of sufficient length to reach across the rear end of the saddle, the said strip being provided with hooks *h′* and attached to the saddle by means of rivets or in any other convenient way.

The saddle thus made has the form required by nature for easy and safe riding. It is supported by a spring-frame A, preferably formed of a spring-steel wire or rod, which is held securely by the saddle-clamp, as shown, and the under surface of the saddle at the pommel is provided with a curved metal strip B, supported by the forward end of the spring-frame A. The rear portion of the saddle is secured to a curved cantle-strip B′, which is

of sufficient length to reach across the rear end of the saddle, the said strip being attached to the spring-frame A and also attached to the saddle by means of rivets or in any convenient way.

It will thus be seen that the saddle is supported by a spring-frame extending on each side of the center line of the saddle and along the portions forming the thigh-curves, so as to retain or hold in shape the different parts of the saddle with respect to the configuration of the parts of the person in contact therewith, so as to offer a support for the rider which will be in accordance with the anatomy of the parts resting on the saddle.

In the modification shown in Fig. 5 the frame A′ is similar to that already described with the exception of the omission of the helical coil *j*, the wire being simply returned without being formed into a spiral.

I have described the perineal depressions as an anterio-posterior depression to more clearly locate the position of the depression relative to the saddle.

I am well aware that saddles having central apertures have been made intended mainly for ventilating purposes, but in general their location is such as not to secure proper support of the perineal parts and cannot perform the same functions as the longitudinal perineal depression I have described. Such depression should have a gradually-increasing width from the pommel portion of the saddle rearward, having its widest part at about the center of the saddle, then gradually decrease in width until near the rear or cantle end of the saddle, at which point the material forming the bottom of the depression or groove gradually rises and merges into confluence with the general contour of that portion of the saddle. This construction supports equally the bottom and sides of the perineal parts and prevents the irritation experienced from the sharp edges of apertured saddles or in ordinary saddles.

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

A spring-frame for a bicycle-saddle, the same being formed of a rod bent to conform to the thigh-curves of the saddle, then curved inwardly toward the center of the saddle to conform to the rear portion, thence extending to the front of the saddle and curved downwardly away from the under surface of the saddle, then returned along the under surface of the saddle at the edge of the perineal depression then extending along the rear portion of the saddle, thence returning to the front of the saddle at the edge of the perineal cavity, being curved to conform to the shape of the said cavity, then bent in the order which is the reverse of that just described, forming the remaining half of the spring-frame, substantially as specified.

CHARLES H. YOUNG.

Witnesses:
A. A. HOPKINS,
GEO. M. HOPKINS.