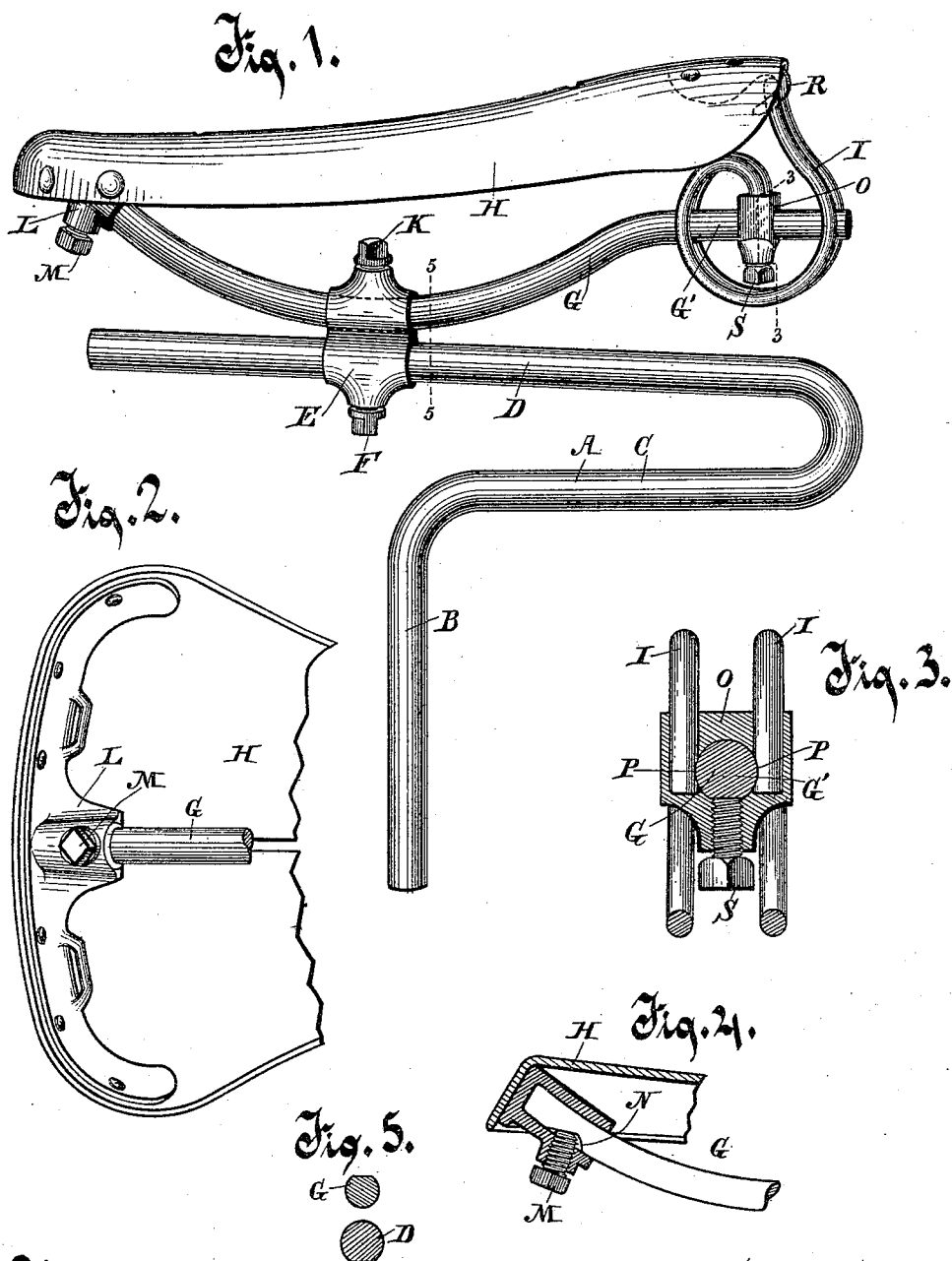


(No Model.)

F. H. BOLTE.
SADDLE FOR VELOCIPEDES.

No. 457,834.

Patented Aug. 18, 1891.



Witnesses.
C. H. Keener.
Anna V. Faust.

Inventor.
Frank H. Bolte
Curtis T. Benedict
Attorney.

UNITED STATES PATENT OFFICE.

FRANK H. BOLTE, OF MILWAUKEE, WISCONSIN, ASSIGNOR OF ONE-HALF TO
PARKER H. SERCOMBE, OF SAME PLACE.

SADDLE FOR VELOCIPEDES.

SPECIFICATION forming part of Letters Patent No. 457,834, dated August 18, 1891.

Application filed December 12, 1890. Serial No. 374,447. (No model.)

To all whom it may concern:

Be it known that I, FRANK H. BOLTE, of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented a new and useful Improvement in Bicycles, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

My invention relates to improvements in the support of the saddle of a bicycle, the object of the invention being especially to provide means for stretching the leather of the saddle, for adjusting the saddle toward the front or rear and at any desired angle, and for securing a desirable and satisfactory spring or yielding support for the saddle, and in the details of construction of the parts and manner of securing them together.

Figure 1 is a perspective view of the complete device. Fig. 2 is a view from the under side of the rear portion of the saddle and the supporting saddle-arm. Fig. 3 is a vertical section of the spring head-block and saddle-arm on line 3 3 of Fig. 1. Fig. 4 is a detail, parts being in section to show the attachment of the saddle-arm to the saddle at its rear end. Fig. 5 is a vertical transverse view of the supporting spring-post and the saddle-arm on line 5 5 of Fig. 1.

A supporting spring-post A is constructed of a bar of steel having a vertical part B, which is adapted to be inserted in a bracket or socket therefor on the backbone of the bicycle, a short lower horizontal part C, and a longer horizontal part D, located partially above at a distance from and substantially parallel with the part C. A block E slides on the horizontal part or arm D of the spring-post, and is secured adjustably thereto by a set-screw F, turning through the block against the under flattened or slabbed side of the arm D, the flattened form of the arm being shown in transverse section in Fig. 5. This construction is adapted not only for securing the block E adjustably to the arm D, but serves also to prevent the block E from tilting or turning on the arm.

A saddle-arm G, constructed of a bar of metal, is connected at its rear end with the rear end of the saddle H, and at its front end

is connected with a spring I, attached to the front end of the saddle H. The arm G is curved downwardly medially and passes movably in the correspondingly-curved aperture therefor through the block E, and is secured adjustably thereto by a set-screw K, turning through the block against the flattened or slabbed upper surface of the saddle-arm G, the slabbed form of the arm being shown in transverse section in Fig. 5.

The saddle H is constructed of leather cut and shaped in a desirable form for a seat, and at its rear or cantle end is provided with a strengthening or re-enforcing metal bracket L, provided with a socket, into which the rear end of the arm G is thrust, and in which it is secured by the set-screw M, turning through the bracket against the arm in a socket N, formed in the arm therefor. A revoluble spring I, advisably constructed of two steel rods of the same form, is secured movably to the front or pommel end of the saddle at one extremity conveniently by being caught onto a hook R, affixed to the saddle, and at the other extremity the ends are inserted in a head-block O. This spring I extends downwardly from the saddle in front of the head-block O, passing below and to the rear of it, and enters the head-block at the top or above its horizontal axis. The two rods of which the spring I is formed are inserted in the head-block O at such distance apart that the arm G, passing transversely through the head-block O between them, bears against the two parts of the spring I in segmental recesses formed therein by the boring of the aperture through the head-block O for the arm G. By this construction the spring I is locked in the head-block by the arm G, which serves as a key in the segmental opposite recesses in the two parts of the spring I, as shown at P P in Fig. 3. The head-block O is adjustable on the front end of the arm G, which for this purpose is made substantially straight for a distance at G', and the weight of a person sitting on the saddle serves to throw the upper end of the spring I toward the rear, and thereby to tilt the head-block O, whereby it is made to grip the arm G and retain its position thereon. A set-screw S is

also provided, which turns through the block O against the arm G' and is an additional means for securing the head-block in position on the arm G.

5 The saddle H, being formed of leather, is flexible and liable to a certain extent to stretch and sag medially, which stretching and sagging may be overcome and the leather held taut by moving the head-block O forcibly forward on the arm G' as far as possible, and securing it permanently in such position by the set-screw S.

10 The saddle is tiltable up or down at the front by moving the arm G forward or rearward in the block E to the extent desired.

15 The saddle is adjustable toward the front and rear of the bicycle by moving it along the arm D of the spring-post A, and the adjustment on the arm D may be made to counteract the adjustment of the saddle through the arm G in the block E, or may be made independently thereof, as desired.

20 A certain amount of resilience in the seat at the front end is obtained by means of the spring I, and the arm G may be made of elastic steel, if preferred; but the principal spring is in the post A, particularly in its horizontal arms C and D, which are so arranged that the saddle is supported nearly or quite vertically above the vertical part B ordinarily, though for greater or less resilience or for other purposes it may be moved farther to the front or to the rear. This spring-post A is a desirable support for the seat, as the long horizontal arms C and D and the curved part connecting them, being elastic, form an ample and gently-yielding spring, which makes the seat very easy and comfortable for the rider, while forming a support for the seat with the least possible mechanism and weight.

40 What I claim as new, and desire to secure by Letters Patent, is—

1. In a bicycle, the combination, with the saddle and a revolute spring secured movably to the front end of the saddle, of a saddle-

supporting arm secured at its rear end rigidly to the rear end of the saddle and at its front end secured adjustably to the revolute spring, which arm curves downwardly medially and is supported medially and adjustably on the seat-supporting post, substantially as described.

2. The combination, with a bicycle-saddle, of a revolute spring secured at one extremity movably to the front end of the saddle and at the other end provided with a head-block about which the spring is curved and in which it is fixed, and a saddle-supporting arm secured at its rear end to the rear end of the saddle and inserted adjustably transversely through the head-block, in which one end of the revolute spring is fixed, substantially as described.

3. In a bicycle, the combination, with a spring, as I, formed of two rods, and a head-block O, into which the rods of the spring are inserted at distances apart, of a supporting-arm, as G, passing transversely through the head-block between the rods of the spring and bearing against the rods in segmental recesses therefor, substantially as described.

4. In a bicycle, a post formed of a single piece of elastic metal comprising a vertical part, as B, a horizontal arm C, a longer horizontal recurved and parallel arm D, provided with a slatted or flattened surface longitudinally thereof, in combination with a block E, fitted and adjustable on the arm D to the front or rear of the vertical part B the entire length of the arm D, the block being provided with a set-screw turning against the flattened face of the arm, and a suitable saddle supported on the block, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

FRANK H. BOLTE.

Witnesses:

C. T. BENEDICT,
ANNA V. FAUST.