

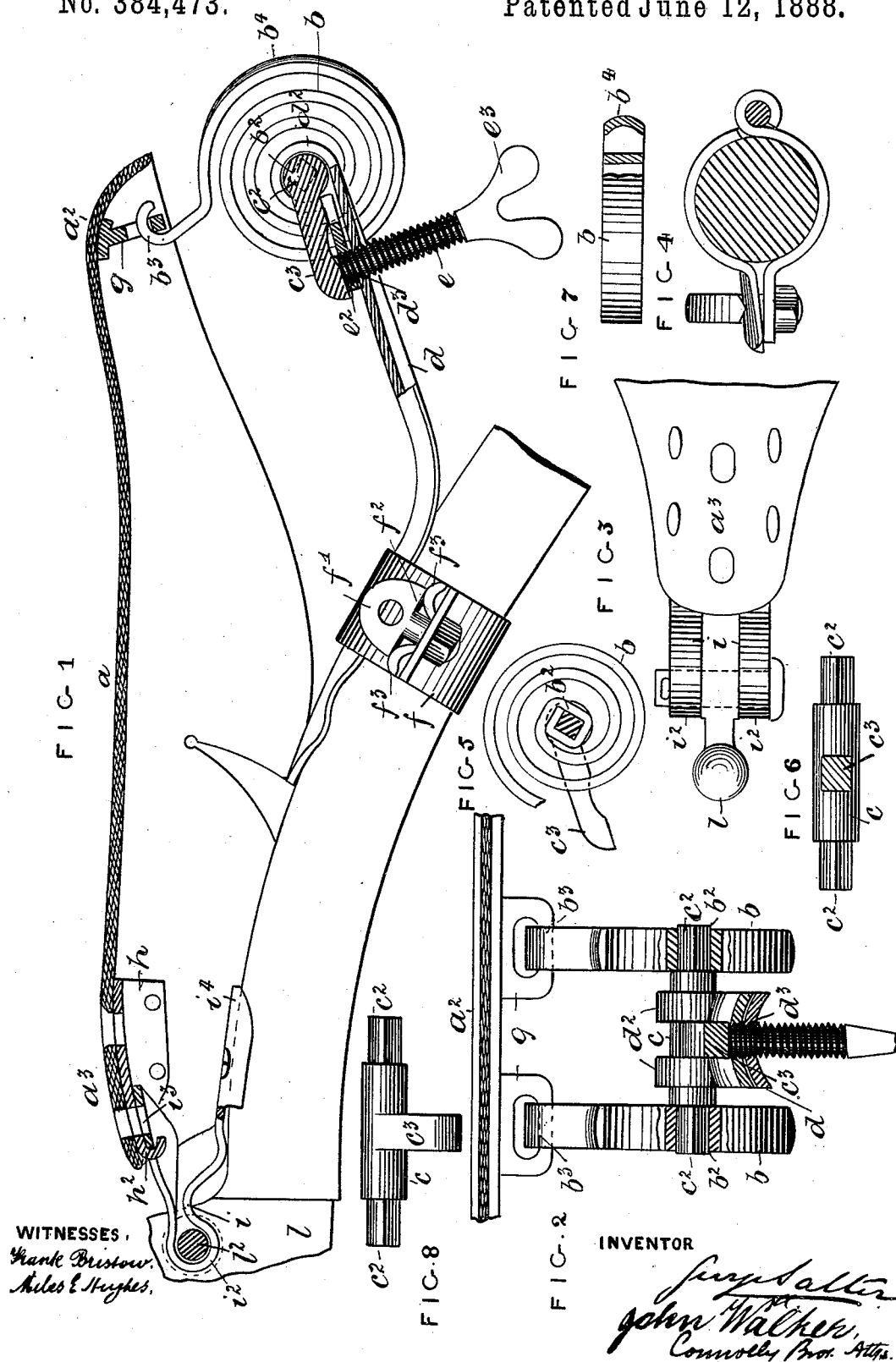
(No Model.)

2 Sheets—Sheet 1.

G. SALTER & J. WALKER.
VELOCIPEDE SADDLE.

No. 384,473.

Patented June 12, 1888.



WITNESSES,
Frank Bristow,
Hiles & Hughes,

INVENTOR

John Walker
Connolly, Prop. Attys.

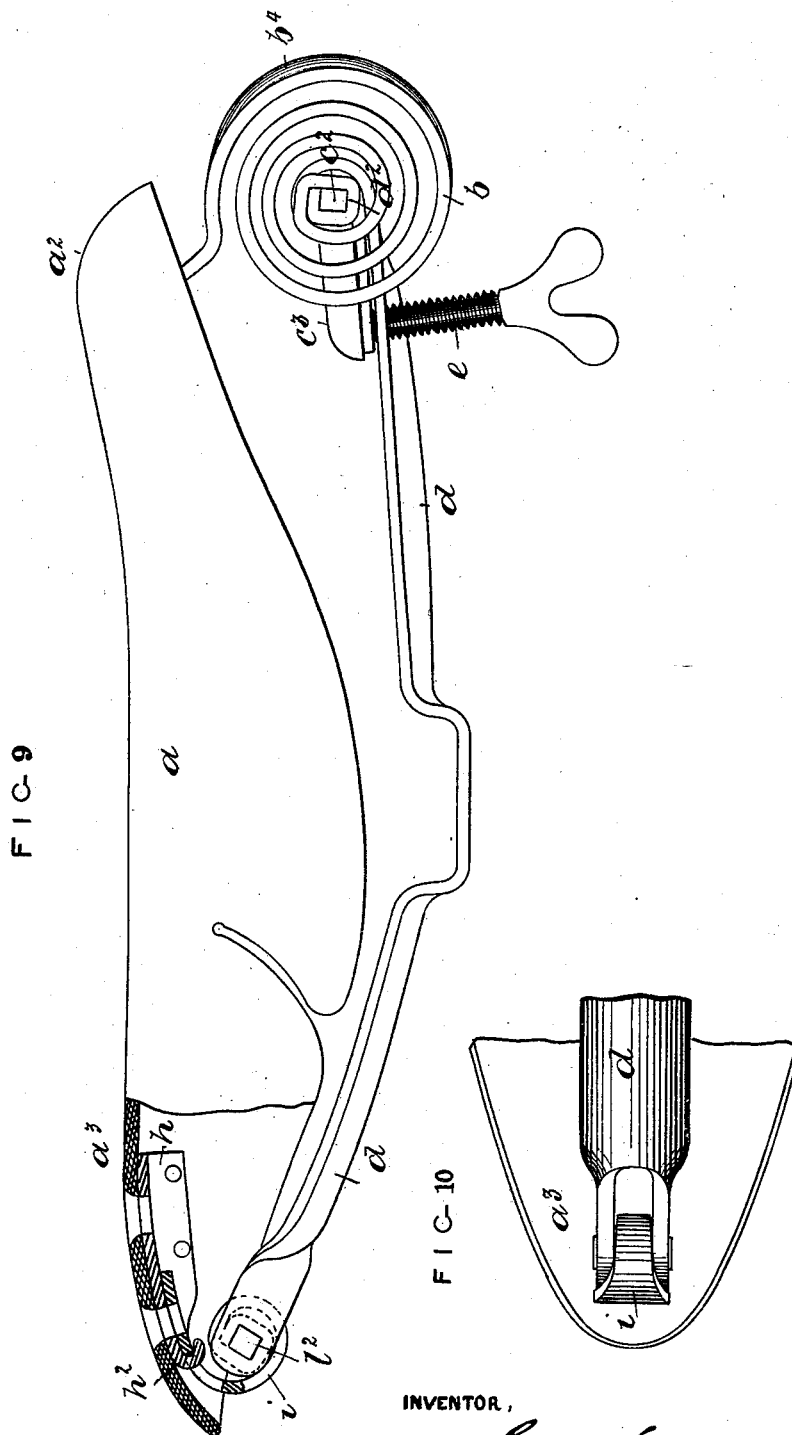
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UNITED STATES PATENT OFFICE.

GEORGE SALTER AND JOHN WALKER, OF WEST BROMWICH, ENGLAND.

VELOCIPED-SADDLE.

SPECIFICATION forming part of Letters Patent No. 384,473, dated June 12, 1888.

Application filed October 26, 1887. Serial No. 253,452. (No model.) Patented in England April 7, 1887, No. 5,173.

To all whom it may concern:

Be it known that we, GEORGE SALTER, manufacturer, and JOHN WALKER, foreman, subjects of the Queen of Great Britain, both residing at West Bromwich, England, have invented a certain new and useful Improvement in Velocipede Saddles, (for which we have applied for Letters Patent in Great Britain, numbered 5,173, dated April 7, 1887;) and we do hereby declare the following to be a full, clear, and exact description of the invention, reference being had to the accompanying drawings, which form part of this specification.

This invention relates to an improvement in velocipede-saddles, and particularly to that class in which the seat is suspended and stretched between two opposite and elevated points, and which said saddles are commonly known as "suspension-saddles."

Figure 1 represents, partly in elevation and partly in vertical section, a bicycle-saddle constructed according to our invention, and which said saddle is shown in connection with the backbone of a machine. Fig. 2 represents in back elevation, partly in section, the said saddle. Fig. 3 is a top side view of the front part of the saddle, showing its connection with the spindle of the neck of a machine. Fig. 4 is a front elevation of the clip which secures the suspending back bracket or back framing to a machine. Fig. 5 is a side elevation of one of the back suspension-springs, showing the square bush at its middle, which takes upon one of the square ends of the supporting and tension spindle. (See Fig. 6, just below.) Fig. 7 represents an end elevation of the said spring, with two of the outer coils in section, in order to exhibit the concaved figure of the outer one. Fig. 8 represents, in plan, the square-ended spindle and arm by which the spindle is rotated in order to wind up or change the tension of the spring. Fig. 9 represents, partly in elevation and partly in vertical section, a bicycle or a rear-driving tricycle saddle made according to our invention. Fig. 10 is an inverted plan of the front of the saddle.

a is a suspended saddle-seat supported at its back end, a^2 , upon two volute or clock springs, b , secured at their inner ends (which are formed into square connection-bushes b^2) to

the squares or square ends c^2 of the winding-up or turning spindle c , (see the back elevation, Fig. 2,) so that the rotation of the said spindle within the bearings d^2 of the carrier-bracket d (seen in dotted lines, Fig. 1, and back elevation, Fig. 2) winds up or adjusts the spring, so as to thus increase or decrease collectively the power or tension of the said springs.

The winding up or adjustment is effected through the intervention of an arm, e^3 , made in one piece or carried by the spindle c , (see Figs. 1 and 8,) and which said arm is operated, or the axis turned, by means of a screw, e , passing and worming through a hole, d^3 , in the bracket d , and with the said screw's end e^2 abutting or pressing upon the under side of the arm, so that on the rotation of the screw, by a fly or other turn, e^3 , the axis c of the springs is rotated, and the coils of the said springs are made to distend themselves or to be drawn closer to each other, according to whether increased or decreased tension has been imparted to them. The outer ends of the said springs are connected by hooked ends b^3 to hanging bracket-loops g , secured to and depending from the back under-skirting of the seat of a saddle.

The back-supporting bracket d is secured to the backbone of a machine by an adjustable and hinged clip, f , clamped in position by a thumb-turn, f^1 , whose shoulder parts f^2 come upon swells or ribs f^3 formed upon and made with one of the flanged parts or halves of the segmental clip, so that by the turning of the thumb-turn the clip is allowed to slightly give on being clamped in position.

The front a^3 of the saddle-seat is supported, secured, and carried by a connection-bracket, h , on its under side, and which said bracket has a hook, h^2 , at its front end, which is made to engage with the back top end, i^3 , of an elevated supporting-bracket, i , whose front end, i^2 , is made loopwise, and through which a connecting-pin, l^2 , of the neck l of a machine passes, while the back lower end, i^1 , of the said bracket is connected by a screw, or otherwise, to the top of a backbone.

On the seat of a saddle requiring to be adjusted or stretched the screw e , by its turn, is rotated from left to right, when the arm e^3 is raised by the advancing motion made by the

screw, and the axis *c* consequently rotated, which in its turn winds up or brings the coils of the springs closer together, so as to thereby increase the tension of the said springs and incidentally stretch the seat of the saddle.

The turning of the screw in the reverse direction relaxes the spring's tension, and thus slackens the seat more or less, as may be required.

The bicycle or rear-driving tricycle saddle, Figs. 9 and 10, is provided with an under frame, *d*, which is secured at its rear end to the middles of the supporting-springs *b*, disposed thereunder, while the front end is connected to a hanging bracket, *i*, with its lower end coiled inwardly and made to surround a square spindle like that at the rear end. This bracket part *i* is connected to the under side of the front of the seat of a saddle by a hooked-ended connection, *h h'*. By attaching the rear and front ends of the seats of saddles by hooked connections the said seats admit of being readily detached when required.

The outer coil of the volute spring *b* is concaved or bowed, as more fully shown in Fig. 7 of the drawings, thus decreasing the danger of breakage of the spring and at the same time rendering it less liable to catch the clothing of the rider.

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

1. The combination, with the back of a velocipede-saddle, of volute springs *b*, connected at their inner ends to the square ends *c'* of a spindle, *c*, whose inner or plain middle part works within bearings or loops *d'* *d''*, carried

by bracket-framing *d*, secured to a framing of a machine by an adjustable clip, and with the outer end of the said springs connected to the under side of the seat by its hooked ends *d'* engaging and hooking into eyes or loops of hanging-bracket connections *g*, all substantially as set forth.

2. The combination, with a saddle-seat, *a a'*, volute or scroll spring *b*, and bracket *d*, of an axis and arm, *c c'*, which is operated by a screw passing through a screwed hole in the said bracket, substantially as set forth.

3. The combination, with a spring, *b*, inner end, *b'*, and its axis *c c'* and arm *c'*, of a screw, *e*, and wormed hole *d'* in bracket or framing through which it passes, as set forth.

4. The combination, with the front of the seat of a saddle-frame, *d*, and hooked connection-bracket *h h'*, of a scroll-bracket, *i*, with its inner end surrounding a square spindle, as set forth.

5. Making the outer coil of the outer end of a volute or scroll spring concaved or bowed, as set forth.

6. The combination, with a velocipede-clip, *f*, of a thumb-turn, *f' f''*, and ribbed or swell parts *f''*, which latter yield on the securing of the clip.

In testimony that we claim the foregoing we have hereunto set our hands this 15th day of September, 1887.

GEORGE SALTER.
JOHN WALKER.

Witnesses:

FRANK BRISTOW,
MILES E. HUGHES.