(No Model.)

C. DE ROSSETTI.

4 Sheets—Sheet 1.

MEANS FOR SUPPORTING VELOCIPEDE SADDLES.

No. 526,265. Patented Sept. 18, 1894.

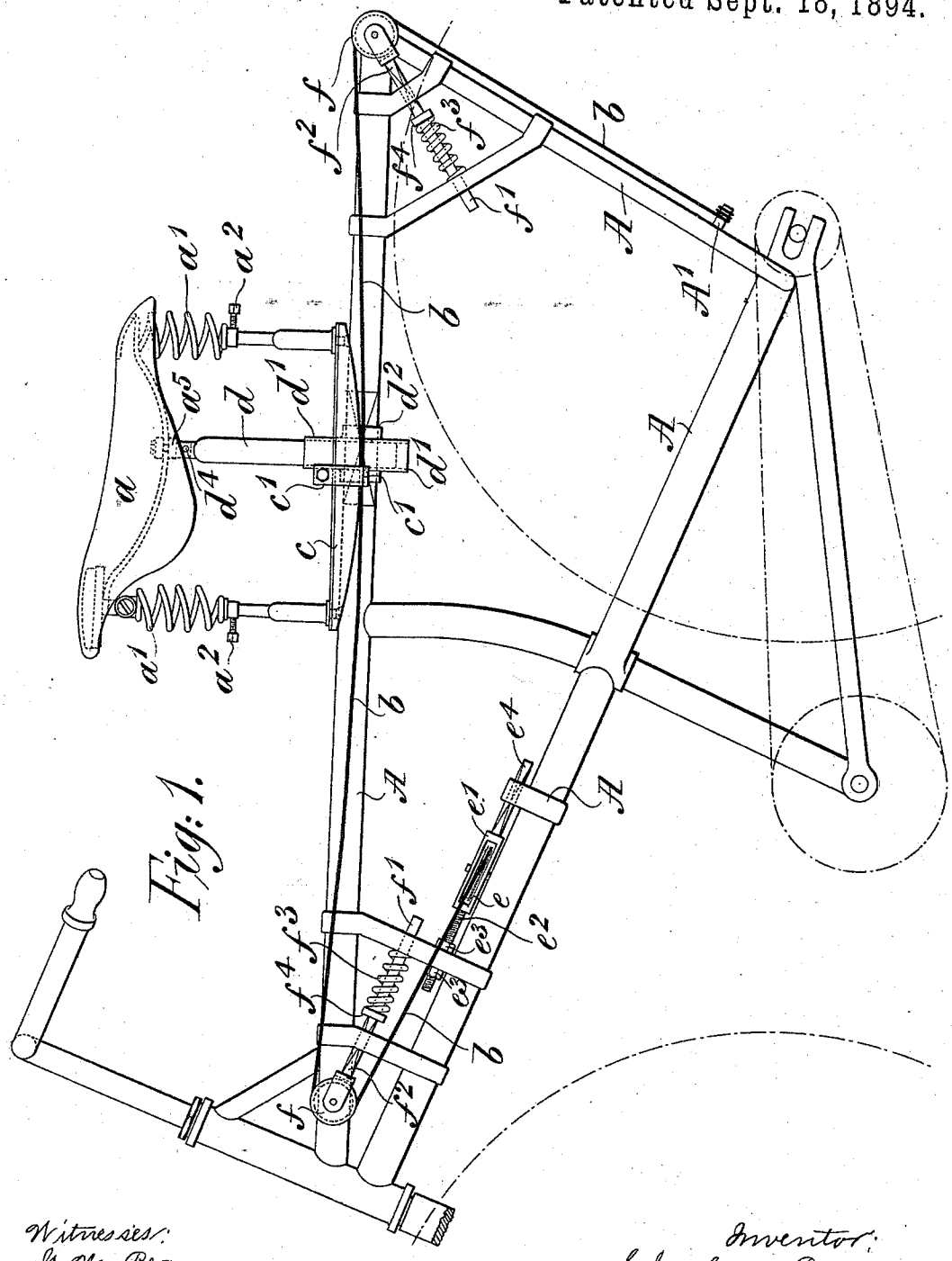


Fig. 1.

Witnesses:
G. W. Rea.
Thos. A. Green

Inventor:
Charles de Rossetti
By James L. Norris.
Atty.

(No Model.)

C. DE ROSSETTI.

4 Sheets—Sheet 2.

MEANS FOR SUPPORTING VELOCIPEDE SADDLES.

No. 526,265. Patented Sept. 18, 1894.

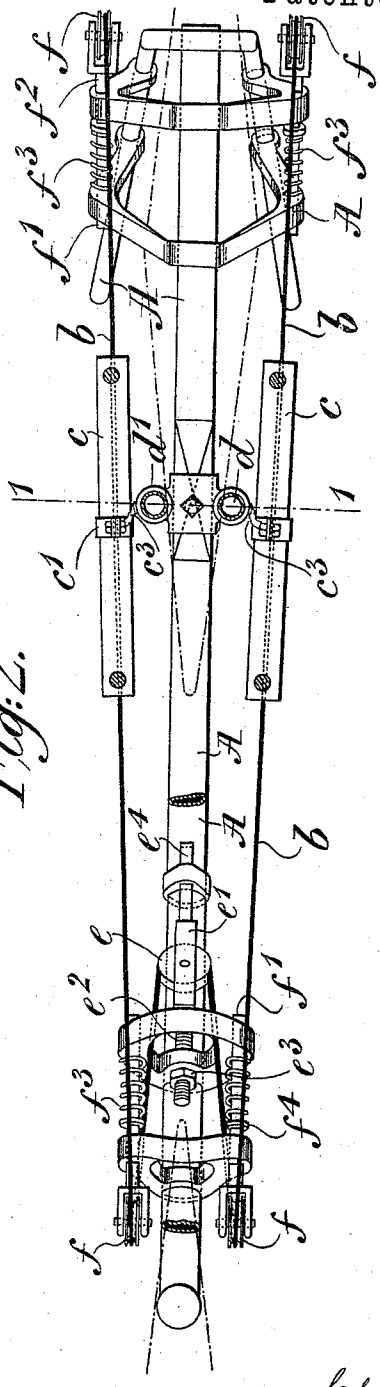


Fig. 2.

Witnesses;
G. W. Rea,
Thos A. Green

Inventor;
Charles de Rossetti,
By James L. Norris.
Atty.

(No Model.) 4 Sheets—Sheet 3.

C. DE ROSSETTI.

MEANS FOR SUPPORTING VELOCIPEDE SADDLES.

No. 526,265. Patented Sept. 18, 1894.

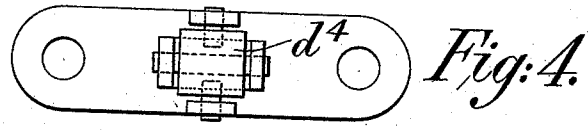


Fig: 4.

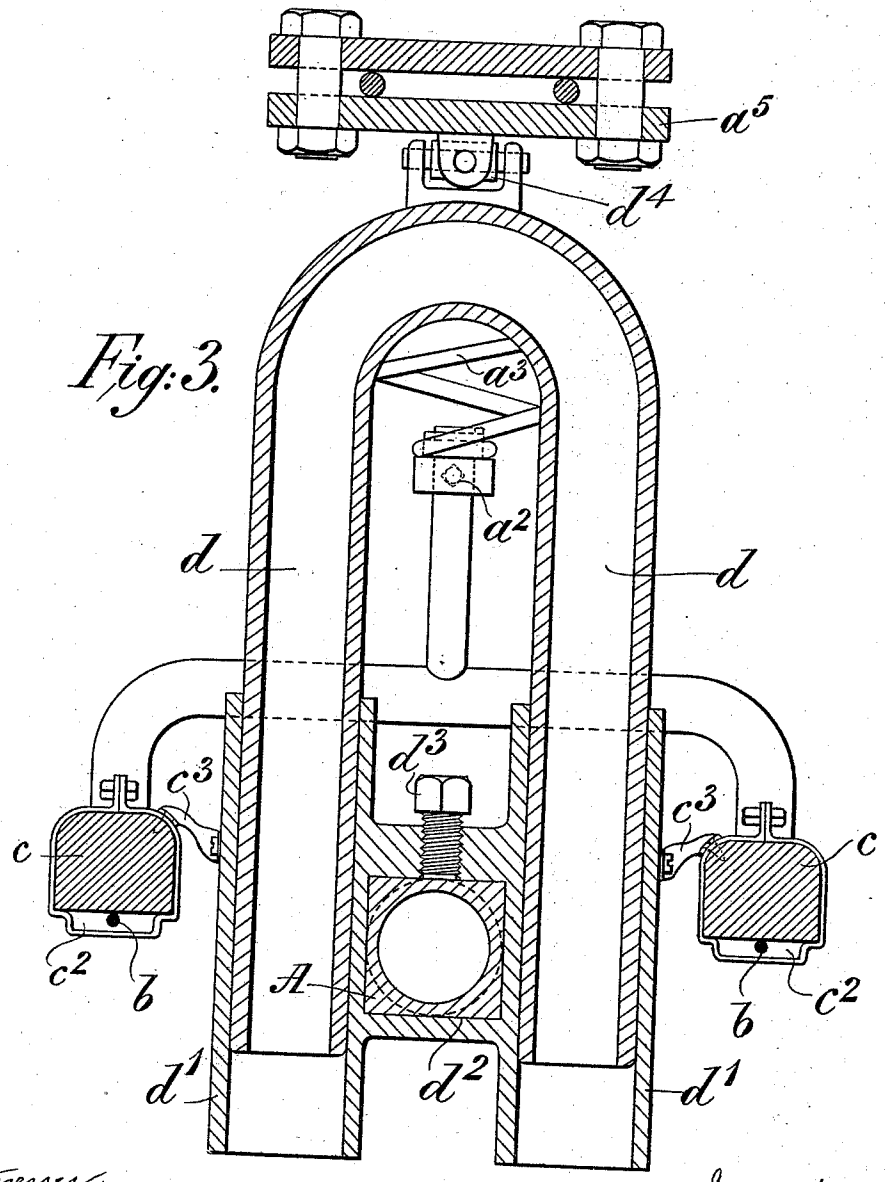


Fig: 3.

Witnesses:
G. W. Rea.
Thos. A. Green

Inventor:
Charles de Rossetti
By James L. Norris.
Atty

(No Model.)

C. DE ROSSETTI.

4 Sheets—Sheet 4.

MEANS FOR SUPPORTING VELOCIPEDE SADDLES.

No. 526,265. Patented Sept. 18, 1894.

Fig. 5.

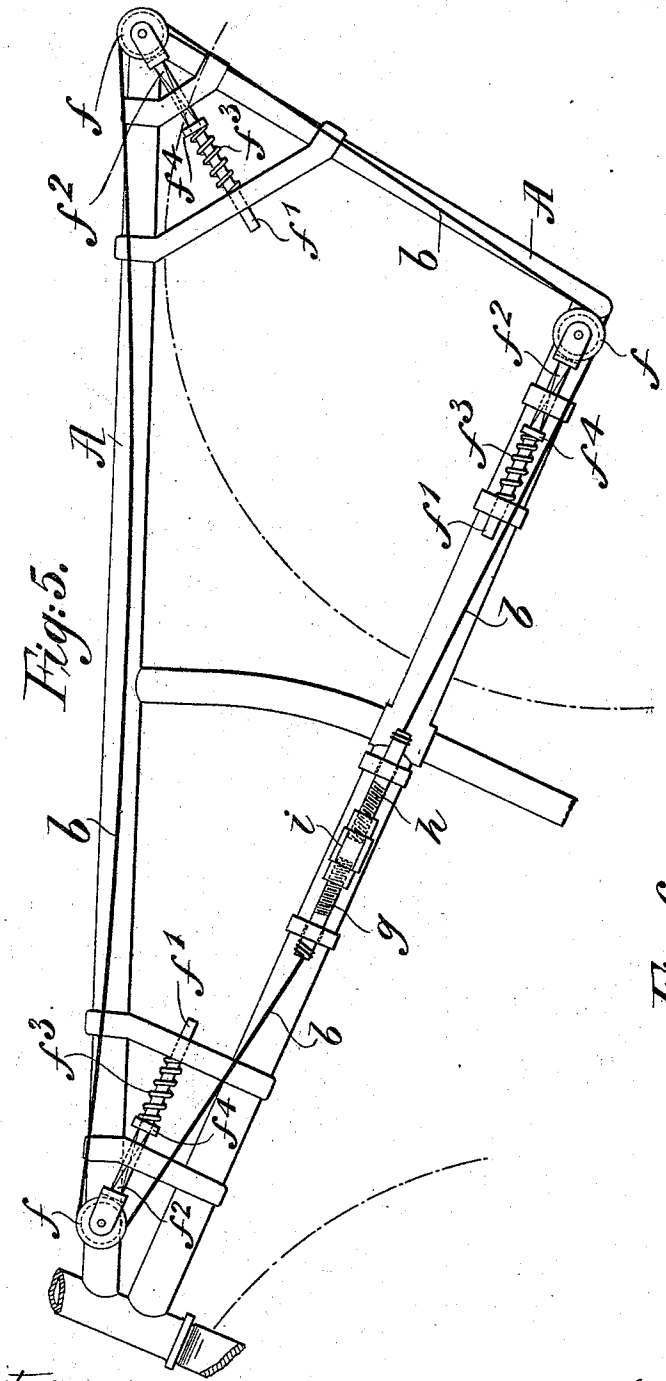


Fig. 7.

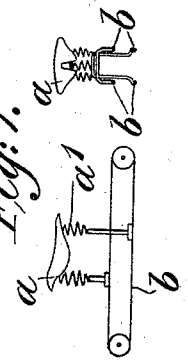
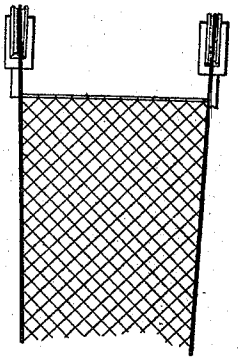


Fig. 6.



Witnesses;
G. W. Rea,
Thos. A. Green

Inventor;
Charles de Rossetti,
By James L. Norris.
Atty,

UNITED STATES PATENT OFFICE.

CHARLES DE ROSSETTI, OF LONDON, ENGLAND.

MEANS FOR SUPPORTING VELOCIPEDE-SADDLES.

SPECIFICATION forming part of Letters Patent No. 526,265, dated September 18, 1894.

Application filed March 3, 1894. Serial No. 502,211. (No model.)

To all whom it may concern:

Be it known that I, CHARLES DE ROSSETTI, civil engineer, a subject of the King of Italy, residing at 12 Porchester Gardens, Bayswater, in the city of London, England, have invented certain new and useful Improvements in Means or Apparatus for Supporting the Saddles or Seats of Velocipedes or Such Like Carriages; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improved means of support for the saddles or seats of velocipedes or such like carriages, and consists mainly in suspending the seats or saddles on a bridge or strained support formed by one or more straps, wires, cords, or bands of steel or other suitable material, in tension in the direction of the length of the vehicle and connected fore and aft to handle bar stem socket and to an upward extension from the framing, or in equivalent manner kept in tensional strain, suitable tightening appliances being provided to maintain such strain. On these straps, wires, bands or cords of suspension is mounted the saddle or seat and fastened thereto by suitable locking nuts or fastenings. To prevent excessive movement sidewise or rocking to such seats, when desired controlling springs may be employed attached to the seat and under frame or back bone, according to the construction of the machine, or the saddle may have a downwardly projecting stem which may be socketed in a sleeve or bearing carried by the body or frame permitting rise and fall but controlling rocking sidewise.

For certain constructions of machines, as for ladies, the tensional suspension or bridge supports for the seat may be attained by a fork or arms from an upright or stem from the lower part or other part of the frame, and for multi-cycles, the arrangements may combine various modifications in detail.

The suspension wires, cords or bands may be anchored at their ends to one or more points, either passing round pulleys, or otherwise, and they may be combined with spring loops as attachments.

In the drawings Figure 1 shows my invention as adapted for use with a bicycle. Fig. 2 shows the same by a plan view, partly in section. Fig. 3 shows a cross sectional view taken on the line 1—1 of Fig. 2 drawn to a larger scale. Fig. 4 shows by a plan view the joint between the seat and its supporting stem. Figs. 5, 6 and 7 show modifications of my improvements, to be described.

In the examples shown in Figs. 1 to 4, the seat a carried by ordinary or convenient springs a' and provided with suitable studs a^2 in order to adjust the height of the seat, is suspended upon the strained cord or wire b by means of its supports c, c. The seat a is also provided with a piston or stem d sliding in a sleeve or bearing d' provided with a part d^2 carried by the framing A, said sleeve being capable of adjustment lengthwise of the vehicle, the part d^2 being formed square to prevent overturning and the screw stud d^3 serving to hold it in the desired position.

Between the part a^5 of the seat and its stem d is a double hinged joint d^4 which enables the seat to rock either to the right hand or to the left hand, as well as backward or forward.

The support c, which may be of wood, india rubber or other suitable material, is kept upon the cord or wire b by means of the strap or part c', the space c^2 allowing it to slide freely when the horizontal position of the seat is to be adjusted. The support c is loosely attached to the sleeve or socket d' as by a band c^3, of leather or other suitable material, which allows the seat to rise or fall to the required extent due to the resilient action of the wire b, but prevents it from dropping if the wire should break or a similar accident occur.

The wire or cord b is passed around the pulley e then over the front and rear pulleys f f, the ends of the cord being connected to the framing at A', one end at each side of the rear wheel. The pulleys f are provided with bars or stems f' carried by the body or frame A, the parts f^2 of the stem being formed square in section in order to prevent turning. The spiral springs f^3 normally pressing upon the collars f^4 of the stems f' keep the pulleys extended. By these means the rigidity of the supporting wire or cord is reduced.

The pulley *e*, carried by the part *e'*, is provided with a screwed stem e^2 and adjusting nuts e^3 e^3, forming means for controlling the tension on the wire *b*. The pulley *e* is prevented from twisting round by the square part e^4 sliding in the framing.

In the modification shown in Fig. 5, the wire or cord *b* may be passed over similar pulleys, *f*, *f*, *f* the ends of the wire being fastened to a suitable tightening screw to adjust the tension on the wire. *g*, *h*, are bolts or rods formed with right hand and left hand screw threads respectively. When the nut *i* is suitably turned or rotated the bolts *g* and *h* are brought nearer to each other, thus tightening or straining the wire. As shown in Fig. 6 the strained cord or wire *b* may be strengthened by means of interlaced cords or wire of suitable flexible material. The seat may also be supported upon endless bands, wires, or cords, as shown diagrammatically in Fig. 7, in which the supporting pulleys of the endless band or cord are arranged horizontally.

By means of the improved construction I am enabled in supporting the weight on the stretched cords to attain among other advantages: the deadening of shocks by their distribution onto many centers thus effecting graduation and transformation of them into an easy undulatory motion, the better preservation of the rigidity of the frame of the vehicle by insuring that the points which take the strain of the shocks arising from inequalities of the road and the like are the points which from their greater strength are most capable of sustaining the same: obviating surging action in the seat by reducing vertical dipping or dropping of the rider in the seat in passing over irregularities; greater ease to the rider in driving by preserving the relative distance between seat and pedals within a convenient range.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is—

1. In a support for the seat or saddle of a velocipede or like carriage, the combination of a suspension bridge or strained supports arranged in the direction of the length of the vehicle and provided with means for adjusting tensional strain, a seat or saddle-support mounted on the suspension bridge or strained supports and carrying a yielding seat or saddle having a depending stem *d*, a sleeve or bearing *d'* adapted to receive said stem and provided with a part d^2 capable of lengthwise adjustment on the vehicle framing, and a double hinged joint d^4 between the seat and its controlling stem, substantially as and for the purposes described.

2. In a support for the seat or saddle of a velocipede or like carriage, the combination of a suspension bridge or strained supports mounted on rollers and provided with means for adjusting tensional strain, the seat or saddle *a*, the supports *c* movably mounted on the suspension devices, springs *a'* intermediate said supports and seat or saddle, the sleeve or bearing *d'* having a lengthwise adjustment on the vehicle frame, the stem *d* adapted to slide in said bearing, and a double hinged joint d^4 between said stem and the seat or saddle, substantially as shown and described.

3. In a support for the seat or saddle of a velocipede or like carriage, the combination of a suspension bridge or strained supports consisting of a continuous cord or wire mounted on rollers journaled in the opposite ends of the frame of the velocipede and passing around a straining pulley, means for adjusting said pulley, the supports *c* movably mounted on the cord or wire, the seat *a*, springs *a'* arranged intermediate said supports and seat, the sleeve or bearing *d'* longitudinally adjustable on the vehicle frame, the stem *d* sliding in said bearing, and a double hinged joint d^4 connected to said stem and seat, substantially as shown and described.

In testimony whereof I, the said CHARLES DE ROSSETTI, have hereunto set my hand this 15th day of February, 1894.

CHARLES DE ROSSETTI.

Witnesses:

JOHN COODE HARE,

ALFRED GEORGE BROOKES.