(No Model.) 2 Sheets—Sheet 1.

E. PETRINI.

VELOCIPEDE SADDLE.

No. 493,338. Patented Mar. 14, 1893.

Fig. 1.

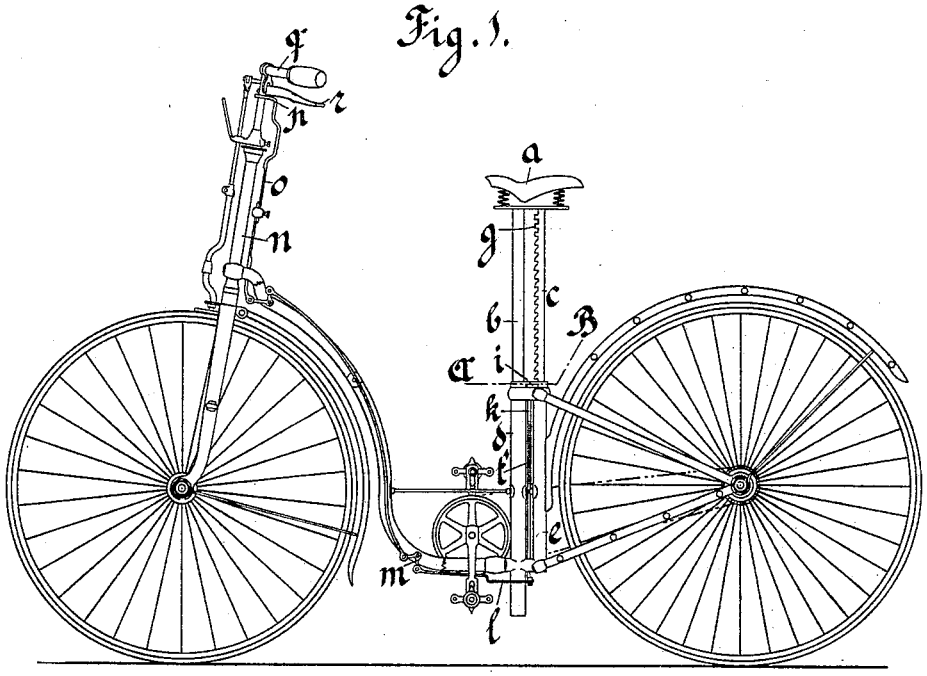
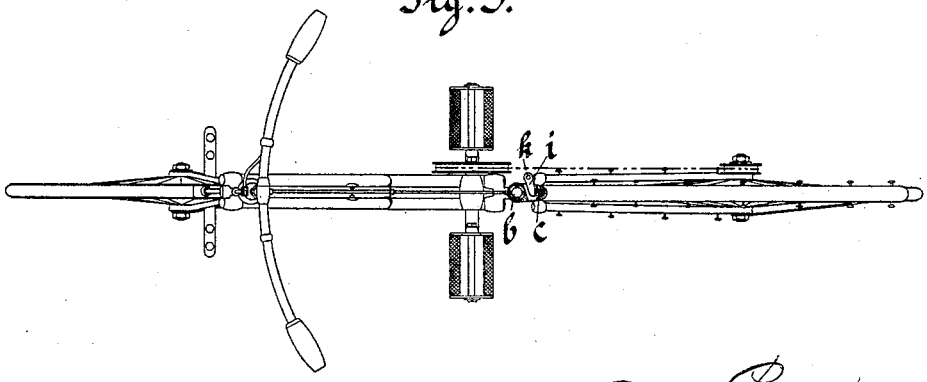


Fig. 3.



WITNESSES:
G. Kiesler.
S. H. Foster

Edward Petrini
INVENTOR:
By John J. Halsted & Son
his Attys

(No Model.) 2 Sheets—Sheet 2.

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Fig. 2.

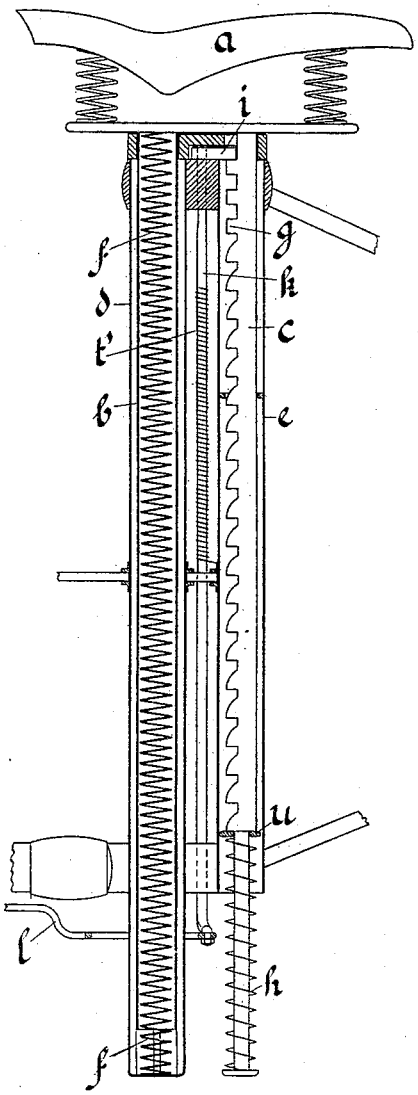
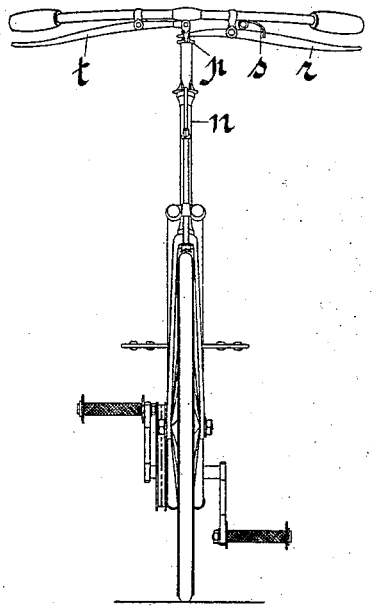


Fig. 4.



WITNESSES:
G. Kesler
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Edward Petrini.
INVENTOR:
By Johnson J. Halsted & Son
Their Attys

UNITED STATES PATENT OFFICE.

EDVARD PETRINI, OF UPSALA, SWEDEN.

VELOCIPEDE-SADDLE.

SPECIFICATION forming part of Letters Patent No. 493,338, dated March 14, 1893.

Application filed October 26, 1892. Serial No. 450,018. (No model.) Patented in Sweden September 29, 1890, No. 2,903; in Germany October 18, 1890, No. 57,565; in Austria-Hungary February 19, 1891, No. 46,221 and No. 75,432; in England March 10, 1891, No. 4,257; in France March 11, 1891, No. 212,035; in Norway March 23, 1891, No. 2,146, and in Belgium March 24, 1891, No. 94,257.

To all whom it may concern:

Be it known that I, EDVARD PETRINI, doctor of philosophy, a subject of the King of Sweden and Norway, and a resident of Upsala, Province of Upland, Sweden, have invented Improvements in Adjustable Velocipede-Saddles, (for which I have obtained a Swedish patent, No. 2,903, dated September 29, 1890; a German patent, No. 57,565, dated October 18, 1890; an Austro-Hungarian patent, No. 46,221 and No. 75,432, dated February 19, 1891; a British patent, No. 4,257, dated March 10, 1891; a French patent, No. 212,035, dated March 11, 1891; a Norwegian patent, No. 2,146, dated March 23, 1891, and a Belgian patent, No. 94,257, dated March 24, 1891,) of which the following is a specification.

In velocipedes as heretofore constructed the saddles are sometimes adjusted to different heights by being supported by a bar pressed upward by a spring, and kept in different positions by a bolt, which is pushed into notches on the said bar.

According to my invention I arrange the saddles in such a manner that during the riding they can be adjusted from a lower position to a higher one more convenient for the rider without his having to make any other motion but to raise himself on the treadles.

In the accompanying drawings Figure 1 shows an elevation of a velocipede arranged in this manner. Fig. 2 is an enlarged side-view and partial vertical section of the lifting arrangement. Fig. 3 is a plan partly in section on the line A—B (Fig. 1) and Fig. 4 is a front-view of the velocipede.

The saddle *a* as usual is supported by a bar *b* inclosed by a tube, which bar is pressed upward by a spiral spring *f*. The saddle is also supported by another bar *c* formed like a toothed or ratchet bar, the cogs of which have a straight lower side, but are inclined at the upper side, as shown in Figs. 1 and 2. The uppermost teeth *g* however are preferably made with both sides straight. Between the lower end of the bar *c* and ring *u*, encircling it loosely is a spiral spring *h*, which has for its object to reduce the shock arising from the violent mounting of the ratchet bar *c*. The bolt *i* lies before the upper part of the ratchet bar and is attached to a bar *k*, which can be turned and has at its lower extremity a projecting arm connected by a draw-rod *l*, two small bell crank levers *m* and a link with a pressure bar *o*, which terminates in a ring *p* surrounding the steering bar *n*. Against the upper end of this bar there rests the bent end of a double lever-arm *r* arranged below one branch of the handle bar *q*. By pressing on the lever arm *r* it is raised and the bar *k* is turned and bolt *i* drawn aside, so that its connection with the ratchet-bar is released in the usual way, in consequence whereof the saddle together with the ratchet-bar is raised by the spring *f*. As soon as the pressure on the arm *r* ceases, the bolt *i* catches again into the ratchet-bar under the influence of a spring *l'* surrounding the bar *k*, thereby preventing its sinking, but on account of the sloping upper-side of every tooth the bolt *i* cannot prevent the raising of the bar, unless this stands in its lowermost position, when the bolt *i* catches between the teeth *g*.

When it is desired to mount the saddle, the latter may be either in a raised or in a lowered position. In the former case the outer end of the lever-arm is raised, so that the bolt *i* can catch in between the teeth of rack *g* and thus arrest the saddle, when the lever-arm *r* is released again. If on the other hand the saddle is already arrested in a lower position in the manner just mentioned, this operation is evidently not required.

After having mounted the saddle from the side the lever-arm *r* is raised and standing on the ground the rider raises himself a little in such a manner that when the lever-arm is again released the saddle and with it the ratchet-bar under the influence of the spiral spring *f* is pushed up so far that the bolt *i* catches one of the ratchet teeth. After having thus released the lever-arm *r* and put the velocipede into motion it is only necessary for the rider to raise himself either at once, or by successive steps to the position which he wishes to occupy during the riding. The spiral spring *f* pushes the saddle upward and the bolt *i* catching in between the ratchet

teeth prevents the saddle from falling down to a lower position. If on the other hand, for instance in riding down a hill the rider wishes to lower the saddle, it is only necessary to press again on the lever-arm *r* and then by one's own weight press down the saddle to the desired position after which the lever-arm is again released, so that the bolt catches in again and thus firmly arrests the saddle in the new position.

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

In adjustable velocipede-saddles, the combination of two bars supporting the saddle one of which is pressed upward by a spring and the other provided with ratchet teeth some of which teeth are inclined on the upper side but straight on the lower side, and also of a bolt, which can catch in between the ratchet teeth and thus arrest the saddle.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

EDVARD PETRINI.

Witnesses:
AUG. EKSTRÖM,
GUSTAF WYMAN.