

RESERVE COPY



A.D. 1874, 23rd July. N° 2574.

Roller Skate.

LETTERS PATENT to Adolphus Frederick Spiller, of the Royal Surrey Hotel, Surrey Street, Strand, in the County of Middlesex, for the Invention of "**AN IMPROVED CONSTRUCTION OF ROLLER SKATE.**"

Scaled the 11th September 1874, and dated the 23rd July 1874.

PROVISIONAL SPECIFICATION left by the said Adolphus Frederick Spiller at the Office of the Commissioners of Patents, with his Petition, on the 23rd July 1874.

I, **ADOLPHUS FREDERICK SPILLER**, of the Royal Surrey Hotel, Surrey Street, Strand, in the County of Middlesex, do hereby declare the nature of the said Invention for "**AN IMPROVED CONSTRUCTION OF ROLLER SKATE,**" to be as follows :—

This Invention consists in certain arrangements of mechanism whereby the operator is enabled to obtain a circular motion and execute at will
10 any gyration or evolution with ease.

To the under surface of the foot stock are affixed two small plates or brackets so constructed at each end as to form bearings to an axle, to

Spiller's Improved Construction of Roller Skate.

which the carriage carrying the rollers is attached. The said plates or brackets have a longitudinal slot down the centre, which, with the employment of a screw, serves not only to attach the said axle to the plates or brackets, but also acts as a regulator by permitting the axle to slide backwards or forwards in its bearings, as may be desired. 5

On the under surface of the axle are two parallel longitudinal ridges or projections, which fit into two corresponding grooves on the upper surface of the carriage, by means of which an oscillatory or tilting movement is imparted to the carriage, the latter being prevented from traversing in said grooves by means of a projection or bolt cast on the 10 axle, which fitting into a slot in the carriage keeps both in corresponding position.

The carriage is fitted to the axle by means of two screws, the sockets for which are recessed so as to receive springs, spiral or otherwise, for the purpose of imparting elasticity and giving with greater ease the 15 oscillatory or tilting motion necessary to perform the gyrations or evolutions required.

The axle upon which the rollers are fitted passes through two arms or axle forks cast upon the body of the carriage, and has its terminal bearings in the frame of the carriage, which is so constructed as to serve 20 as a lock to a spring attachment at one end of the axle.

SPECIFICATION in pursuance of the conditions of the Letters Patent, filed by the said Adolphus Frederick Spiller in the Great Seal Patent Office on the 23rd January 1875.

TO ALL TO WHOM THESE PRESENTS SHALL COME, I, ADOLPHUS 25 FREDERICK SPILLER, of the Royal Surrey Hotel, Surrey Street, Strand, in the County of Middlesex, send greeting.

WHEREAS Her most Excellent Majesty Queen Victoria, by Her Letters Patent, bearing date the Twenty-third day of July, in the year of our Lord One thousand eight hundred and seventy-four, in the thirty- 30 eighth year of Her reign, did, for Herself, Her heirs and successors, give and grant unto me, the said Adolphus Frederick Spiller, Her special licence, that I, the said Adolphus Frederick Spiller, my exc-

Spiller's Improved Construction of Roller Skate.

cutors, administrators, and assigns, or such others as I, the said Adolphus Frederick Spiller, my executors, administrators, and assigns, should at any time agree with, and no others, from time to time and at all times thereafter during the term therein expressed should and
5 lawfully might make, use, exercise, and vend, within the United Kingdom of Great Britain and Ireland, the Channel Islands, and Isle of Man, an Invention for "AN IMPROVED CONSTRUCTION OF ROLLER SKATE," upon the condition (amongst others) that I, the said Adolphus Frederick Spiller, my executors or administrators, by an instrument in
10 writing under my, or their, or one of their hands and seals, should particularly describe and ascertain the nature of the said Invention, and in what manner the same was to be performed, and cause the same to be filed in the Great Seal Patent Office within six calendar months next and immediately after the date of the said Letters Patent.

15 **NOW KNOW YE**, that I, the said Adolphus Frederick Spiller, do hereby declare the nature of my said Invention, and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement thereof, reference being had to the Drawings herewith annexed, that is to say:—

20 This Invention relates to an improved construction or arrangement of mechanism forming the under parts of roller skates, whereby a skater is enabled to perform circular or curvilinear motions within limited areas, and to execute any required gyration or evolution with ease and comfort.

25 I am aware that roller skates having a cramping action of the rollers by a canting of the footboard have been used before, but those hitherto made, from the peculiar arrangement of the mechanism, have been comparatively limited in their cramping action, and have thereby been prevented from giving perfect freedom to practised skaters when they
30 desire to perform what may be termed graceful skating, that is, forming figures in a contracted area, or enabling skaters to maintain the required changes of positions.

My Invention also enables unpractised skaters to adjust the cramping action to almost any degree of rigidity, which can be released from time
35 to time until they possess complete control over the skates; when the mechanism can be "sett" for free play for graceful skating.

Spiller's Improved Construction of Roller Skate.

My Invention is clearly represented in the accompanying Drawings, in which Figure 1 shows a roller skate with my improved construction or arranged mechanism attached to the footboard or stock.

Figure 2 is a detached side view of one of the metal plates or brackets with a barrel for the reception of a steel spiral spring, which barrel serves the very useful purpose of keeping the spring free from dirt or dust at the same time that it is properly held. It also affords a bearing for the pressure bolt, hereinafter referred to.

Figure 3 is a plan of the carriage with the arms or bearings through which the axles carrying the rollers are fitted. 10

Figure 4 represents a steel spiral spring, the body of which is to be enclosed in the barrel above mentioned, and by means of which the action of the skate can be regulated so as to meet the requirements of the skater in obtaining circular or curvilinear movements, and which also assists him in propelling himself along, while at the same time it serves to restore the skate to its central position when the pressure of the foot is removed. 15

Figure 5 is a vertical view of the pressure bolt or pin, and forms an important feature in my improvements. Its stem is made to pass through the steel spiral spring, as shown in Figure 6, the spring being incased in a barrel *g* of the bracket *B*,) the head of which bolt can be made as required thicker or thinner, and the amount of inclination that can be given to the skate can be regulated by the thickness of the head. 20

Figure 7 is a horizontal view of a cylindrical convex screw, which not only serves to attach the carriage frame *C* to the metal plates or brackets *B*, but also forms the central inclined axle upon which the said carriage oscillates; and Figure 8 is a detached view of an adjusting screw plug or cap, by which the pressure of the spring is also regulated, whereby a more or less circular motion can be given to that skate. 30

Similar letters have reference to similar parts.

A represents the footboard or stock of the skate, to the under side of which the metal plates or brackets *B*, *B*, are screwed or otherwise secured.

Figure 2 shows a detached view of one of the brackets with the bearings for the central screw or axle *b*, shown separately in Figure 7, 35

* *Spiller's Improved Construction of Roller Skate.*

g is the central barrel or socket for receiving the spiral spring *H* (see Figure 4), the lower end of which rests against the shoulder of the bearing bolt or pin *K*, as shown at Figure 6, while the other or upper end receives the pressure imparted by the regulating screw plug *L*, this
5 working into the tapped upper end of the barrel or socket *G*.

m, m, m, m, Figure 3, is a plane circular platform forming the upper part of the body of the carriage *C*, upon the surface of which the head of the bearing bolt or pin *K* rests, when the said carriage *C* is attached by means of the central screw or axle *b* to the metal plates or brackets
10 *B*, the carriage *C* being arranged between the bearings *a, a*, of the bracket.

n, n, Figure 3, show the arms or bearings forming part of the body of the carriage *C*, and through which the axle *O* carrying the rollers *R, R*, is fitted, each end of said axle *O* having a lock nut upon it to prevent
15 the rollers *R, R*, from working loose.

To enable the operator or skater using this improved skate to gain more or less oscillatory or circular motion, according to the degree of efficiency acquired by him, all that is necessary, assuming the screw plug to remain unchanged, is to screw or unscrew the aforesaid regulating
20 plug *L*, which action will have the effect of lessening or increasing the pressure by compressing the steel spiral spring *H* in a greater or less degree against the head of the bearing bolt or pin *K*, which latter in turn presses with equal force upon the surface of the platform *m, m, m, m*,
25 of the carriage *C*, so that the amount of cramping motion obtained by the carriage *C* on its axis *b* is entirely due to the pressure exerted by means of the said spiral spring *H* and the regulating screw plug *L*.

It has been before explained that by using a pressure bolt with a thicker or thinner head the rocking action of the skate can be regulated.

30 Having thus described the nature of my Invention, I would observe in conclusion that what I claim as my Invention of an improved construction of roller skate under the above part recited Letters Patent is,—

Firstly. The combination of parts constituting my improved construction or arrangement of mechanism, and forming an adjustable means of
35 attaching rollers to a footboard or stock of a roller skate, whereby a

Spiller's Improved Construction of Roller Skate.

person is enabled to perform the required circular or curvilinear movements, the whole constructed substantially as described and shown in the Drawings annexed.

Secondly. I claim the use of spiral springs fitted and working within barrels, such springs being in connection with a regulating screw plug and bearing platform, as and for the purpose herein-before described and as illustrated in the accompanying Drawings.

Thirdly. I claim the use, as and for the purpose described, of the pressure bolt K.

In witness whereof, I, the said Adolphus Frederick Spiller, have hereunto set my hand and seal, this Nineteenth day of January, One thousand eight hundred and seventy-five.

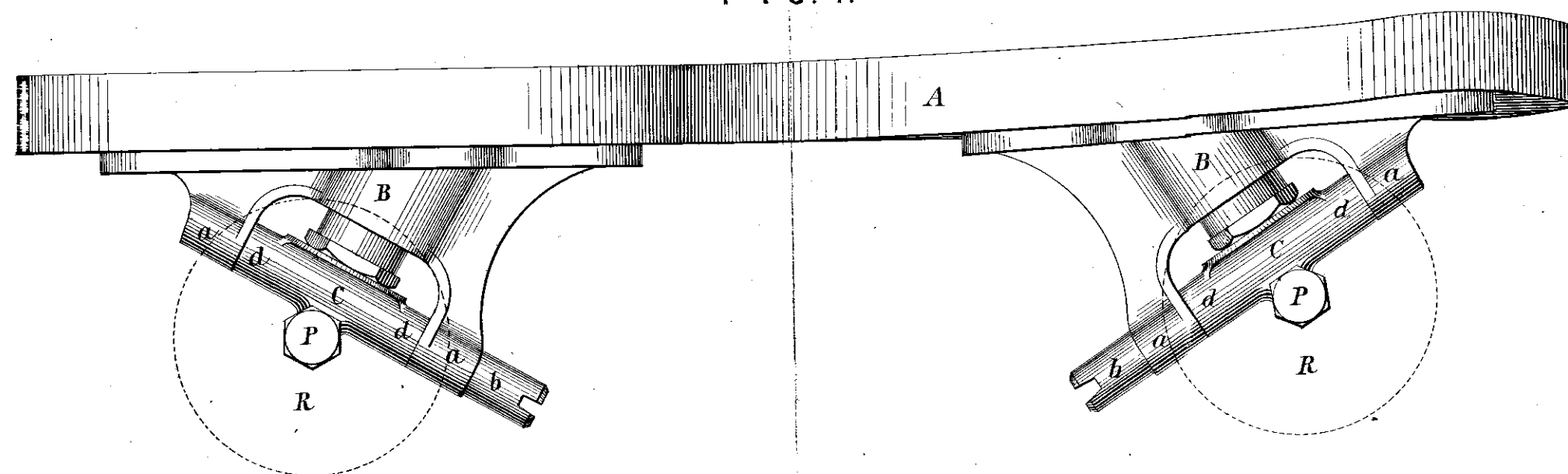
A. F. SPILLER. (L.S.)

LONDON:

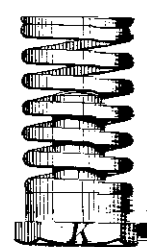
Printed by GEORGE EDWARD EYRE and WILLIAM SPOTTISWOODE,
Printers to the Queen's most Excellent Majesty. 1875.

A.D.1874. JULY 23. N^o2574.
SPILLER'S SPECIFICATION.

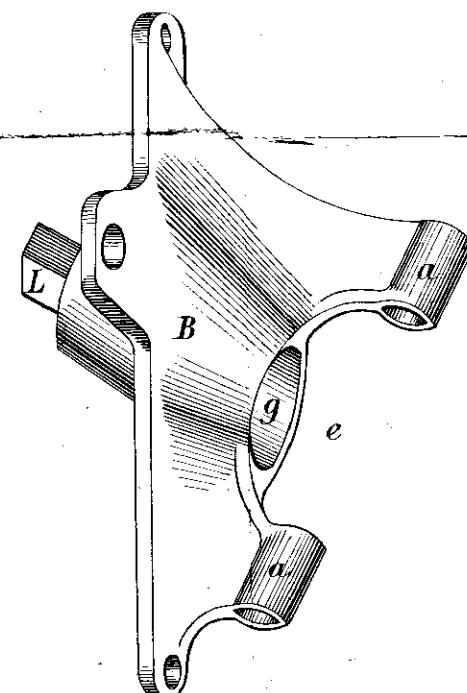
F I C . 1 .



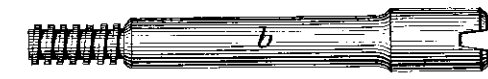
F I C . 6 .



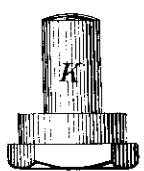
F I C . 2 .



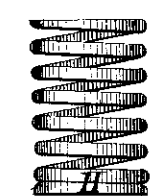
F I C . 7 .



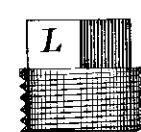
F I C . 5 .



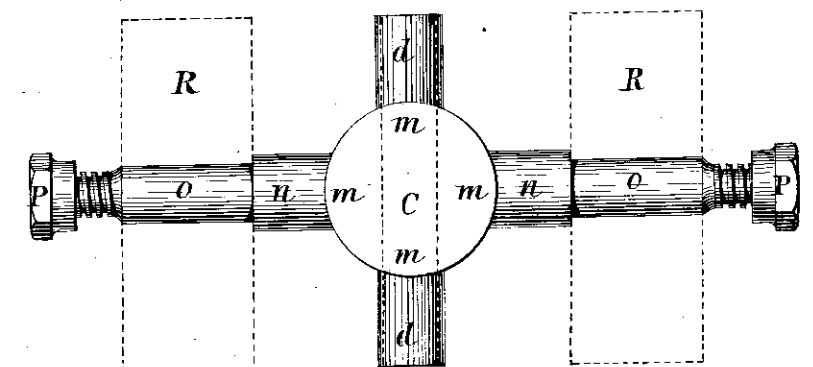
F I C . 4 .



F I C . 8 .



F I C . 3 .



The filed drawing is not colored

Drawn on Stone by Malby & Sons.