

Specification of Alexander Timon Cornelis Schoevers : trusses.

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1873, 818 JANUARY. N^o 84.

SPECIFICATION

OF

TIMON CORNELIS SCHOEVERS.

TRUSSES.

LONDON:

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1873.



A.D. 1873, 8th JANUARY. N° 84.

Trusses.

LETTERS PATENT to Alexander Timon Cornelis Schoevers, of the Hague, in the Kingdom of Holland, Surgeon, for the Invention of
“IMPROVEMENTS IN TRUSSES FOR THE CURE OR RELIEF OF HERNIA.”

Sealed the 21st March 1873, and dated the 8th January 1873.

PROVISIONAL SPECIFICATION left by the said Alexander Timon Cornelis Schoevers at the Office of the Commissioners of Patents, with his Petition, on the 8th January 1873.

I, ALEXANDER TIMON CORNELIS SCHOEVERS, of the Hague, in the
5 Kingdom of Holland, Surgeon, do hereby declare the nature of the said
Invention for “IMPROVEMENTS IN TRUSSES FOR THE CURE OR RELIEF OF HERNIA,”
to be as follows:—

My Invention has for its object the production of a truss which in
use shall exert the necessary pressure at the required point, and at the
10 same time shall not be liable to displacement by the motion of the body
of the wearer.

Schoevers' Improvements in Trusses.

My said Invention has reference wholly or mainly to that part of the truss called the pad or cushion, and consists in making the said pad or cushion in the following manner:—I make the back of the pad of a series of radial spring arms connected to a central plate. The ends of the spring arms are expanded in breadth and slightly turned up. The 5 said springs and central plate are bent so as to give the whole a dome-like figure. The said springs and central plate may be made in one piece by cutting out from thin sheet steel. The outline of this spring back of the pad may either be circular or elliptical. Within the said dome or spring back is a coiled spring of a conical figure, the apex of the cone 10 being connected to the centre of the plate forming the summit of the dome. The base of the conical spring carries a small metallic plate, which, when the spring carrying it is uncompressed projects a short distance beyond the plane in which the ends of the spring arms are situated. The parts described are contained within a case or cover of 15 vulcanized india-rubber. The pad is connected to the spring band, which passes round the body of the wearer by a connection at its back, which allows the said pad a considerable range of motion about the end of the spring band. The face of the pad of the truss is of a slightly convex figure, the central part being made to project considerably by the 20 pressure of the conical spring.

In applying my improved truss the central part of the face of the pad is applied to the centre of the rupture, the spring band being attached to the body of the wearer. The said spring band presses the pad against the body, and the result of the pressure is that the edge of 25 the pad is thereby pressed all round against the body, thus fixing the position of the pad by the hold which the edge of the pad acquires on the flesh of the part to which it is applied.

By my improved truss the pressure is applied to the rupture at the precise point required, and the position of the pad is so secured that 30 there is no risk of its displacement by the motion of the wearer's body.

Schoevers' Improvements in Trusses.

SPECIFICATION in pursuance of the conditions of the Letters Patent, filed by the said Alexander Timon Cornelis Schoevers in the Great Seal Patent Office on the 2nd July 1873.

TO ALL TO WHOM THESE PRESENTS SHALL COME, I, ALEXANDER
5 **TIMON CORNELIS SCHOEVERS**, of the Hague, in the Kingdom of Holland, Surgeon, send greeting.

WHEREAS Her most Excellent Majesty Queen Victoria, by Her Letters Patent, bearing date the Eighth day of January, in the year of our Lord One thousand eight hundred and seventy-three, in the thirty-
10 sixth year of Her reign, did, for Herself, Her heirs and successors, give and grant unto me, the said Alexander Timon Cornelis Schoevers, Her special license that I, the said Alexander Timon Cornelis Schoevers, my executors, administrators, and assigns, or such others as I, the said Alexander Timon Cornelis Schoevers, my executors, administrators, and
15 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 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 "**IMPROVEMENTS IN TRUSSES FOR THE CURE OR RELIEF OF**
20 **HERNIA**," upon the condition (amongst others) that I, the said Alexander Timon Cornelis Schoevers, my executors or administrators, by an instrument in 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
25 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.

NOW KNOW YE, that I, the said Alexander Timon Cornelis Schoevers, do hereby declare the nature of the said Invention, and in what manner
30 the same is to be performed, to be particularly described and ascertained in and by the following statement thereof, that is to say :—

My Invention has for its object the production of a truss which in use shall exert the necessary pressure at the required point, and at the same time shall not be liable to displacement by the motion of the body of
35 the wearer.

Schoevers' Improvements in Trusses.

My said Invention has reference wholly or mainly to that part of the truss called the pad or cushion, and consists in making the said pad or cushion in the following manner:—I make the back of the pad of a series of radial spring arms connected to a central plate. The ends of the spring arms are expanded in breadth and slightly turned up. The 5 said springs and central plate are bent so as to give the whole a dome-like figure. The said springs and central plate may be made in one piece by cutting out from thin sheet steel. The outline of this spring back of the pad may either be circular or elliptical. Within the said dome or spring back is a coiled spring of a conical figure, the apex of the cone 10 being connected to the centre of the plate forming the summit of the dome. The base of the conical spring carries a small metallic plate, which when the spring carrying it is uncompressed projects a short distance beyond the plane in which the ends of the spring arms are situated. The parts described are contained within a case or cover of 15 vulcanized india-rubber. The pad is connected to the spring band, which passes round the body of the wearer by a connection at its back, which allows the said pad a considerable range of motion about the end of the spring band. The face of the pad of the truss is of a slightly convex figure, the central part being made to project considerably by the 20 pressure of the conical spring.

In applying my improved truss the central part of the face of the pad is applied to the centre of the rupture, the spring band being attached to the body of the wearer. The said spring band presses the pad against the body, and the result of the pressure is that the edge of 25 the pad is thereby pressed all round against the body, thus fixing the position of the pad by the hold which the edge of the pad acquires on the flesh of the part to which it is applied.

By my improved truss the pressure is applied to the rupture at the precise point required, and the position of the pad is so secured that 30 there is no risk of its displacement by the motion of the wearer's body.

Having explained the nature of my Invention, I will proceed to describe, with reference to the accompanying Drawing, the manner in which the same is to be performed.

Figure 1 represents in edge view a truss constructed according to my 35 Invention; Figure 2 represents a cross section of the pad or cushion of

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the truss detached; Figure 3 represents the pad or cushion in elevation without its case or cover of vulcanized india-rubber; and Figures 4, 5, 6, 7, 8 and 9 are parts of the same as herein-after explained. The same letters of reference indicate the same parts in the several Figures of the
5 Drawing.

a, a is the series of radial spring arms connected to the centre plate b , the said spring arms and plate constituting the spring back of the pad, the said spring back having a dome-shaped figure. The said arms and plate a, b , are made from one piece of sheet steel. The ends of the
10 spring arms a, a , are expanded in breadth and have a convex or rounded figure given to them. The dome shaped spring back a, b , is represented in plan in Figure 4. The centre plate b of the dome shaped spring back is secured between the flat edges of the two cupped metallic plates c, d , the middle of each plate being hemispherical for the purpose herein-after
15 explained. The cupped plate c is represented separately in elevation, section, and plan in Figure 5, and the cupped plate d is represented separately in elevation, section, and plan in Figure 6. The two plates c, d , are connected together with the middle part b of the dome shaped back a, b , between them by the screw pins e, e , the concave faces of the
20 plates being presented to each other. When so presented to each other and fixed together, a spherical central opening is left between them, in which the spherical end f^2 of the connecting arm f fixed on the spring band h works. The arm f, f^2 , is shown separately in Figure 7. Between the cupped plate c and the head f^2 of the arm f is a filling up piece g ,
25 shown separately in Figure 8. The connection of the spring band h of the truss to the pad or cushion is thus effected by a joint of the kind commonly called a ball-and-socket joint, the spherical end f^2 of the arm f forming the ball part, and the spherical opening between the two plates c, d , the socket part of the joint. Within the dome shaped spring back
30 a, b , of the pad is a coiled spring i of a conical figure, the apex of the cone being connected by soldering or otherwise to the centre of the cupped plate c . The base of the conical spring i carries a small convex metallic plate k , which plate k projects when the spring i is uncompressed beyond the plane in which the arms a, a , of the spring back a, b , are
35 situated; l is the case or cover of vulcanised india-rubber (shown separately in Figure 9) by which the parts constituting the pad or cushion are enveloped. The said case or cover l , besides covering and

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protecting the parts of the pad from injury, also assists in preventing the pad from getting out of place. The pad or cushion thus made has a convex figure, the central part being made to project considerably by the pressure of the conical coiled spring. The shape of the completed pad or cushion is best seen in Figures 1 and 2. By connecting the pad 5 or cushion to the spring band *h* of the truss by the ball-and-socket joint at its back as represented in the Drawing, the said pad or cushion has considerable play or range of motion about the end of the said spring band.

In applying my improved truss to a rupture, the central part of the 10 face of the pad or cushion is placed against the centre of the rupture and the spring band is fastened to the body of the wearer. On fastening the truss to the body the action of the spring band presses the pad against the body and compresses the arms *a, a*, of the spring back *a, b*, which are thereby expanded or flattened out, and by their elasticity 15 press every part of the edge *l*² of the pad against the body. The position of the pad is thus fixed by the hold which the edge *l*² of the pad acquires on the flesh of the part to which it is applied, and the central part *k* of the pad which has been pressed with considerable force against the ruptured part by the action of the coiled spring *i*, is thereby 20 prevented from being displaced.

By an examination of the Drawing it will be seen that by the united action of the spring back or dome *a, b*, conical spring and plate *i, k*, elastic covering *l*, and the spring band *h*, the pad or cushion is so firmly fixed on the person that it cannot be moved without lifting up the spring 25 band.

Having now described the nature of my Invention, and the manner in which the same is to be performed, I wish it to be understood that I do not limit myself to the precise details herein described and illustrated, as the same may be varied without departing from the nature of my 30 Invention, but I claim as my Invention of "improvements in trusses for the cure or relief of hernia,"—

Firstly. Constructing the pad or cushion of trusses of a dome shaped spring back, within which a conical coiled spring, having a convex metallic plate at its base is fixed, and enveloping the whole in a case or 35 cover of vulcanized india-rubber, the said parts being combined and

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acting substantially as herein-before described and illustrated in the accompanying Drawing.

Secondly. The arrangement or combination of parts herein-before described and illustrated in the accompanying Drawing for connecting
5 the back of the pad or cushion to the spring band of the truss, whereby the said pad or cushion has considerable play or range of motion about the end of the said spring band.

10 In witness whereof, I, the said Alexander Timon Cornelis Schoevers have hereunto set my hand and seal, this Fifteenth day of June, in the year of our Lord One thousand eight hundred and seventy-three.

ALEXANDER TIMON CORNELIS SCHOEVERS. (L.S.)

Witness,

JACQUES CORNELIS PAULUS HOTZ.

LONDON:

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Printers to the Queen's most Excellent Majesty. 1873.



