R. DE PUY.

ADJUSTABLE SPLINT.

APPLICATION FILED JAN. 25, 1915.

1,232,899. Patented July 10, 1917.

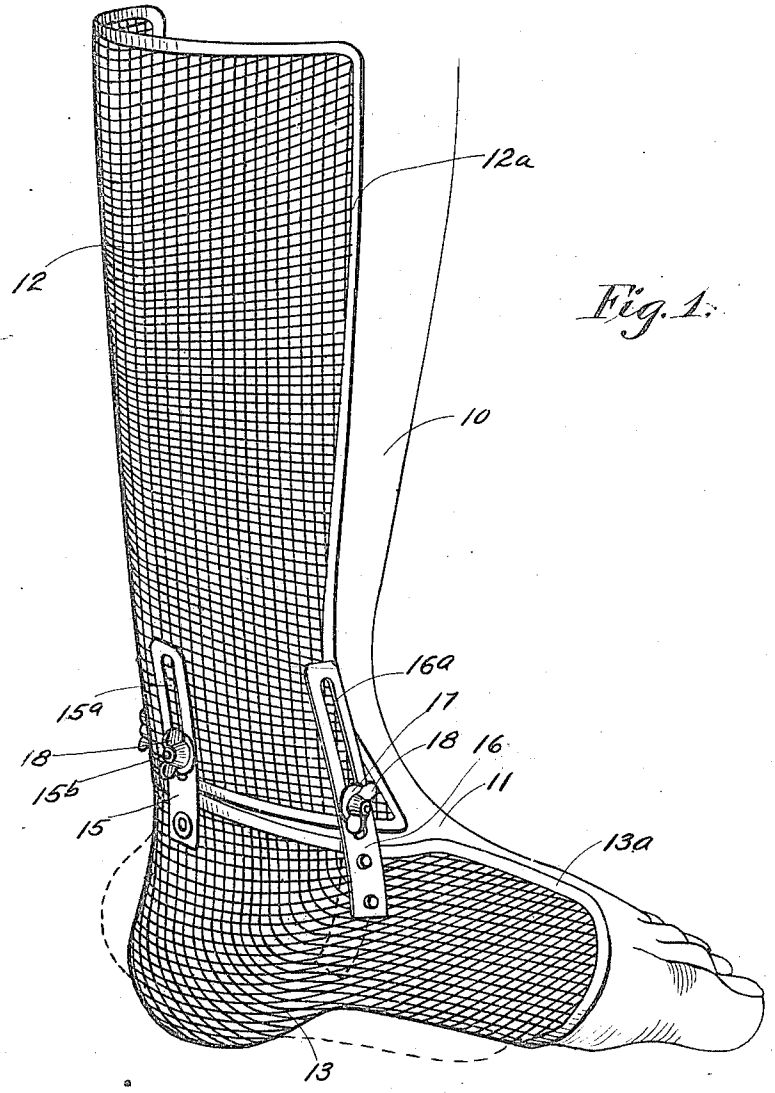


Fig. 1.

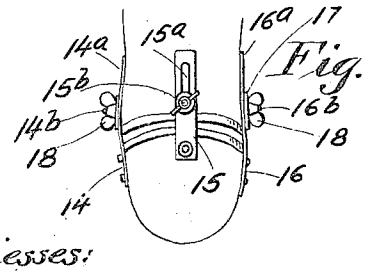


Fig. 2.

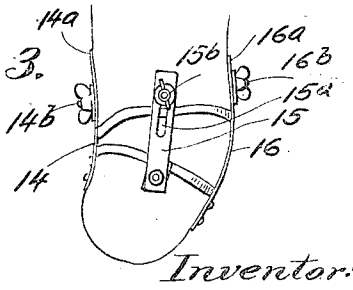


Fig. 3.

Witnesses:
C. C. Burnap
Henry A. Parks

Inventor:
Revra De Puy
By Sheridan, Wilkinson & Scott, Att'ys

UNITED STATES PATENT OFFICE.

REVRA DE PUY, OF WARSAW, INDIANA.

ADJUSTABLE SPLINT.

1,232,899. Specification of Letters Patent. Patented July 10, 1917.

Application filed January 25, 1915. Serial No. 4,261.

To all whom it may concern:

Be it known that I, REVRA DE PUY, a citizen of the United States, residing at Warsaw, in the county of Kosciusko and State of Indiana, have invented certain new and useful Improvements in Adjustable Splints, of which the following is a specification.

This invention relates to an improved splint adapted for use in connection with the setting of broken bones, or the like; and more particularly the invention comprises an adjustable splint, the parts of which are capable of assuming a variety of positions relatively to each other.

My improved splint is especially adapted for use in connection with fractures of bones of the ankle, the lower leg, and the foot, or other like injuries or defects; and the principal object of the invention is to provide a splint having parts which may be adjusted in angular position or spaced relation relatively to each other in order that they may accommodate themselves to the condition of the members to which they are applied. A further object is to provide a splint having a leg portion and a foot portion with improved adjustable connections whereby said portions may be separated from or adjusted relatively to each other. Still another feature of the invention relates to the provision of a well ventilated, sanitary, and comfortable device of the kind referred to, which will be strong, durable, and efficient in use.

Other features and objects of the invention will be set forth more particularly in connection with the following specification and accompanying drawings, in which—

Figure 1 shows a perspective view of my improved device assembled in position on the lower leg and foot of a patient or wearer, the dotted lines showing a modified adjustment of the parts.

Fig. 2 shows a rear elevation of my device when the parts thereof are in the adjusted position shown by full lines in Fig. 1; and

Fig. 3 shows a rear elevation of the device with the parts thereof adjusted to assume a different relation to each other, corresponding to the adjustment indicated by dotted lines in Fig. 1.

Referring to the drawings, the lower leg and foot of the patient or wearer are designated by the numerals 10 and 11, respectively, and my improved adjustable splint comprises a leg portion 12 and a foot portion 13, which are adjustably connected to each other, preferably adjacent the ankle of the wearer. The leg portion is constructed to substantially conform to the contour of the rear side of the lower leg of the wearer, while the foot portion is constructed to substantially conform to the major portion of the foot of the wearer. The leg portion and foot portion of the splint are both formed so that they may be applied to either the right or left leg of the patient. Both the leg and foot portions are preferably formed from wire cloth, which may be nickle-plated, or galvanized, if desired, and the borders of each portion of the device are provided with binding strips 12^a and 13^a, respectively, formed from sheet metal, or the like, in order to protect the edges of the wire cloth and lend suitable rigidity to the construction.

The parts of my device are adjustably connected by means of flexible plates 14, 15, and 16, which plates are secured to one portion of the device, preferably the foot portion, and arranged to be engaged by locking means carried by the other portion. The plates 14 and 16 in this instance are rigidly connected to the foot portion at opposite sides thereof, and the plate 15 is pivoted on the foot portion adjacent the rear extremity thereof, midway between the plates 14 and 16. These plates are provided, above the foot portion, with longitudinally extending slots 14^a, 15^a, and 16^a, which slots are adapted to be engaged by studs 14^b, 15^b, and 16^b, secured to the leg portion of the device. Each of these studs carries a washer 17 which seats against the corresponding plate, and each of the studs is also engaged by a wing nut 18, which may be caused to engage the corresponding washer, and thereby firmly clamp the adjacent flexible plate to the leg portion of the splint.

It will be seen that the longitudinal slots 14^a, 15^a, and 16^a, which are provided in the flexible plates 14, 15, and 16, permit of a wide range of adjustment between the leg and the foot portions of the structure. In the case of a broken ankle, for instance, this adjustability permits the parts of the splint to be adjusted to accommodate themselves to the position of the leg and foot of the wearer after the fracture has been reduced and corrected, as shown in Fig. 3, and as

represented by dotted lines in Fig. 1. It will also be seen that when the device is adjusted in this way the flexible plates permit of a large angular variation in the adjustment without causing inconvenience or discomfort to the wearer. It will be understood that after the parts of the splint have been first adjusted to conform to the position of the members to which they are applied, they may later on be readjusted as said members heal or tend to reassume their normal relation.

While I have illustrated but one modified adjustment of my device, other than the normal adjustment shown in Fig. 1, it will be understood that various other possible adjustments may be made if desired. I prefer to construct the parts of the splint of wire cloth, as above stated, and I also prefer to construct the flexible plates of brass; but it will be apparent that other materials may be substituted if occasion should require.

In the foregoing description, and in the accompanying drawings, I have illustrated and described one specific embodiment of my invention, but I contemplate changes in the form and arrangement of parts of my invention as circumstances may suggest or occasion require, without departing from the spirit thereof as defined in the appended claims.

I claim:—

1. An adjustable splint comprising a leg portion and foot portion, and adjustable means for connecting said leg and foot portions, said means comprising a flexible plate attached to one portion, a stud attached to the other portion and engaging said plate, and a lock nut engaging said stud.

2. In a device of the class described, a leg portion, a foot portion, a slotted plate pivoted on the rear part of one of said portions, a slotted plate rigidly connected to said last mentioned portion at each side thereof, and locking means engaging the slots in said plates and secured to the other portion.

3. In a device of the class described, a leg portion, a foot portion, a slotted plate pivoted on the rear part of one of said portions, a slotted plate connected to said last mentioned portion at each side thereof, studs secured to the other portion and engaging the slots in said plates, and lock nuts engaging said studs.

In testimony whereof, I have subscribed my name.

REVRA DE PUY.

Witnesses:
THOMAS F. SHERIDAN,
GLEN E. SMITH.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."