

No. 739,634.

PATENTED SEPT. 22, 1903.

N. P. ALLEN.
LEG BRACE FOR ANIMALS.
APPLICATION FILED JUNE 5, 1903.

NO MODEL.

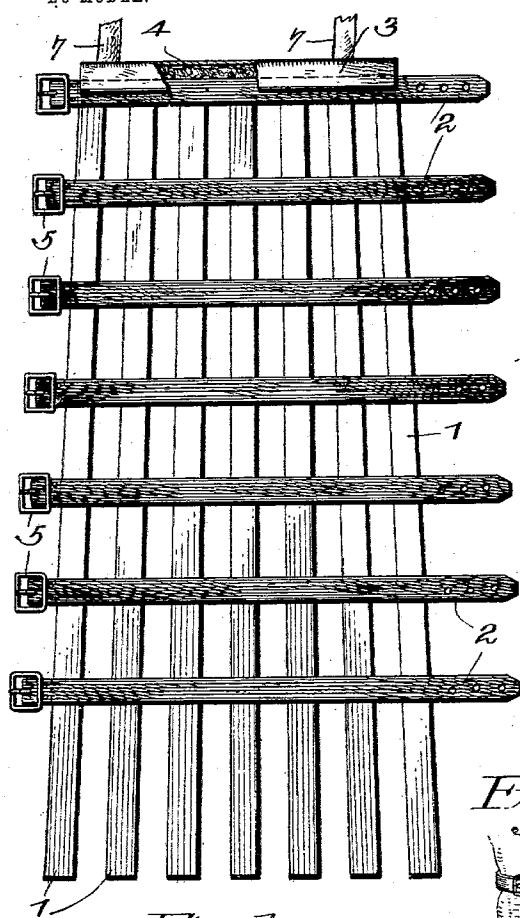


Fig. 1.

Fig. 2.

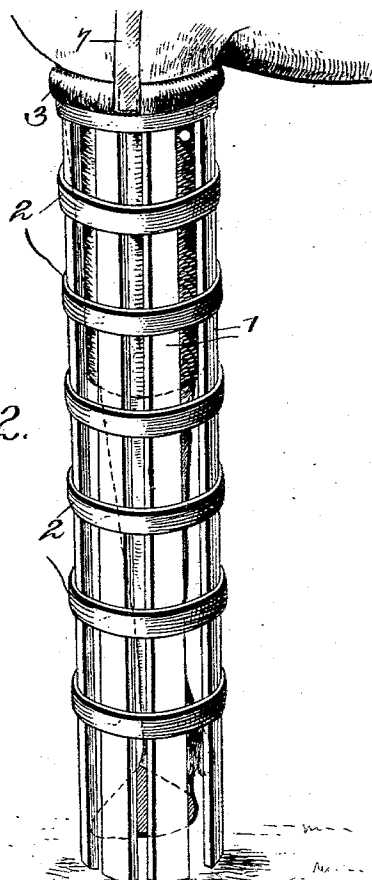


Fig. 3.

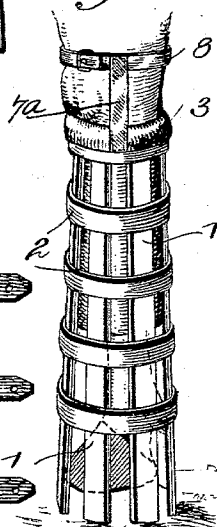


Fig. 4.

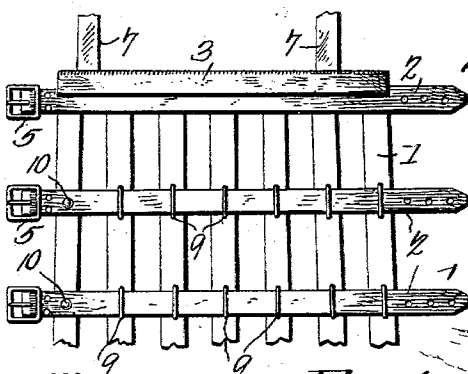
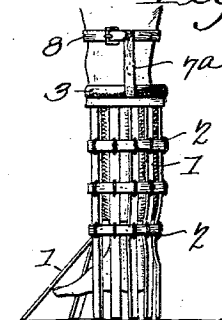


Fig. 5.



Witnesses
E. P. Stewart
Wm. Bagger

N. P. Allen, Inventor
by C. A. Snow & Co.
Attorneys

UNITED STATES PATENT OFFICE.

NATHAN PERRY ALLEN, OF SMITHS GROVE, KENTUCKY.

LEG-BRACE FOR ANIMALS.

SPECIFICATION forming part of Letters Patent No. 739,634, dated September 22, 1903.

Application filed June 5, 1903. Serial No. 160,241. (No model.)

To all whom it may concern:

Be it known that I, NATHAN PERRY ALLEN, a citizen of the United States, residing at Smiths Grove, in the county of Warren and State of Kentucky, have invented a new and useful Leg-Brace for Animals, of which the following is a specification.

This invention relates to leg-braces for long bone-fractures of animals; and it has for its object to provide a device of this class which shall be simple in construction, easily applied, and which when properly made and applied shall assist materially to reduce the discomfort of the suffering animal, and consequently tend to its rapid recovery.

The invention consists in the improved construction of a bracing device which may be easily applied and which shall be thoroughly effective for the purposes set forth, as will be hereinafter fully described, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a plan view showing one form of embodiment of my invention, the brace being spread out flat, so as to enable its construction to be readily understood. Fig. 2 is a perspective view showing the brace applied to the front leg of a horse in case of fracture above the knee. Fig. 3 is a perspective view showing my invention applied to the leg of a horse in case of fracture below the knee. Fig. 4 is a detail view illustrating a modification. Fig. 5 is a perspective view showing one form of my improved device applied to the limb of a man fractured below the knee.

Corresponding parts in the several views are indicated by similar numerals of reference.

My improved leg-brace consists simply of a plurality of strips 1, which may be made of tough wood, metal, or any other suitable material. A suitable number of these strips are to be connected by a plurality of flexible bands or straps 2 2, which may be riveted or otherwise suitably secured at their points of intersection with the strips. The upper ends of the latter are additionally connected by means of a wide strap of leather or other suitable material 3, which is bent or doubled upon the upper ends of the strips and which, if desired, may be padded, as shown at 4. The projecting ends of the flexible straps 2

may be provided with buckles or other suitable connecting means, as indicated at 5, it being understood, however, that I do not limit myself to any particular means for connecting the ends of said straps in the act of fitting the device upon the leg of an animal.

My improved leg-bracing device is intended to be made in different lengths, as well as in different sizes, for the different animals to which it is intended to be applied. Regarding the length of the device, it is to be understood that the strips, which may be said to constitute the body of the device, are to be sufficiently long to extend some distance below the foot of the limb to which the device is applied. Thus, for instance, in the case of a horse where the fracture is above the knee the strips should be sufficiently long so that the upper padded end of the device may be supported against the body of the animal, while the lower ends of the strip should be permitted to project several inches below the foot. In the case of a fracture below the knee the upper padded end of the device is to be permitted to rest or be supported against the knee-joint, while the lower ends of the strips, as before, will be left to extend a sufficient distance below the foot. In other words, wherever the fracture may be located the device is to be supported by its upper padded end against the joint next above or against the body of the animal, while the lower extremities of the strips shall be extended below the foot, thus causing the leg of the animal when standing to be supported above the ground, and consequently submitted to no strain whatever.

In applying my improved leg-brace the fracture is reduced and the bones set by any well-known method, such as by the use of splints, plaster-of-paris, or in any preferred way. My improved leg-brace is then applied in the manner described and is permitted to remain for any length of time necessary to effect a cure.

It will be observed that an animal suffering with a bone-fracture when equipped with my improved leg-brace is not absolutely helpless and does not require to be raised to a standing position by means of swings, as is now ordinarily done. The animal thus afflicted when equipped with my improved leg-

brace is capable of assuming a standing position without assistance and will by no means be utterly helpless. The brace also serves to prevent the possibility of dislocation of the fracture subsequent to the setting of the bone.

It will be very obvious that the improved leg-brace may be readily fitted to any particular animal by making the strips composing the same of excessive length and sawing them off to the desired length at the time of application.

In order to prevent the leg-brace from sliding off or in a downward direction, the upper end of said leg-brace in each of its forms is provided with straps, such as indicated at 7 in Figs. 1 and 2, said straps being adapted to be suitably connected above the body of the animal. In the case of a fracture below the knee straps 7^a are connected with the upper end of the brace, and said straps are connected with an auxiliary strap 8, encircling the leg above the knee, and which will effectually prevent the brace from sliding downwardly or from being otherwise dislocated.

Man is obviously included among the animals which may be treated by my improved apparatus.

When this device is applied, it is obvious that the slats which constitute the body of the device are to be fitted and retained securely in the proper position. Being constructed of yieldable material, it is not necessary that the slats when applied should be absolutely straight up and down, inasmuch as at intermediate points they may be bent inward or outward, as the case may be, for the purpose of fitting them to the conformation of the limb and the bandages upon the latter. This may not always be absolutely necessary, especially in the case of animals, where the slats, as shown in Figs. 2 and 3, may be straight, provided that they are sufficiently rigid to support the weight imposed upon them. If desired, however, as shown in Fig. 5, the slats may be bent to follow the contour of the limb, and this bending may be performed either before or during the application of the device. It would also be possible to remove the lower ends of such slats as would otherwise come in contact with the upper side of the foot.

While the means for connecting the slats 1 with the straps 2 have not been particularly described, I desire to state that they may be connected permanently, as by means of rivets

or analogous means, or slidably, as by means of staples driven into the slats, thus connecting the slats slidably with the straps. This latter construction has been illustrated in Fig. 4, and it is obvious that when this construction is carried out the slats may be more accurately adjusted and fitted to the case in hand. In Fig. 4, 9 designates the staples. In any case, however, I prefer that at least one slat should be permanently connected with the straps, this being the end slat, which is under any circumstances connected with the straps by means, for instance, of rivets, as shown at 10, this being for the purpose of holding the parts properly assembled.

Having thus described my invention, I claim—

1. An apparatus for treating long bone-fractures of animals, the same consisting of a plurality of flexibly-connected strips of a length to be supported at their upper ends against the body of the animal or against the joint above the fracture and to extend at their lower ends below the foot of the animal, which is thereby supported above the ground, when the animal is standing.

2. An apparatus for treating long bone-fractures of animals, the same consisting of a plurality of strips, flexibly connected, a wide strap doubled upon the upper ends of said strips and constituting a pad adapted to be supported against the body of the animal or against the joint above the fracture, the strips constituting the body of the apparatus being of a length to extend below the foot of the animal when adjusted in operative position.

3. An apparatus for the treatment of bone-fractures in animals, the same consisting of a plurality of supporting-strips flexibly connected at their upper ends, a padding device adapted to abut against the joint above the fracture, the lower end of said bracing-strips being extended below the foot of the animal, which is thereby supported above the ground when the animal is standing, intermediate securing means, and upwardly-extending straps whereby the device may be secured against downward displacement.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

NATHAN PERRY ALLEN.

Witnesses:

W. J. WADE,

G. E. WILCOXSON.