

No. 661,812.

Patented Nov. 13, 1900.

T. D. MCKOWN & H. E. CLARK.
SURGICAL APPLIANCE.

(Application filed Feb. 21, 1900.)

(No Model.)

Fig. 1.

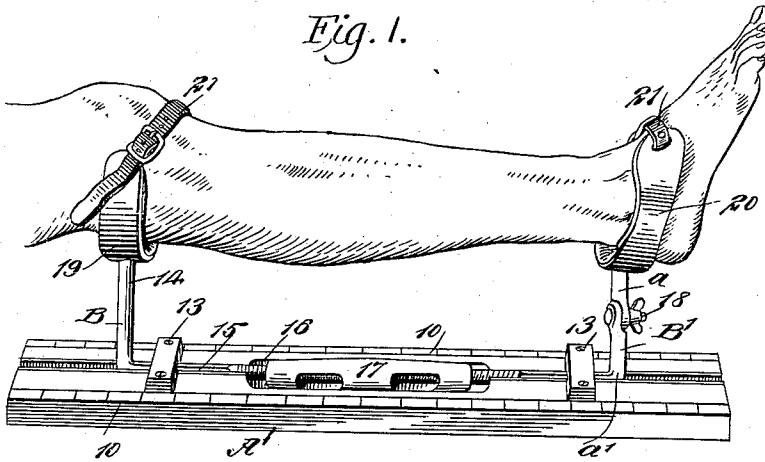


Fig. 2.

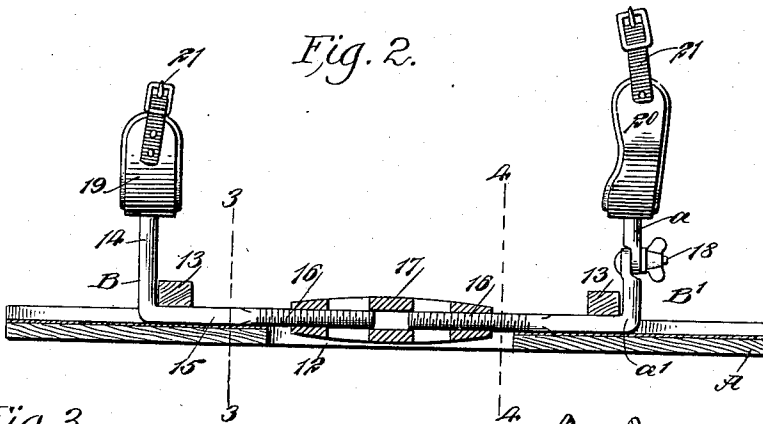


Fig. 3.

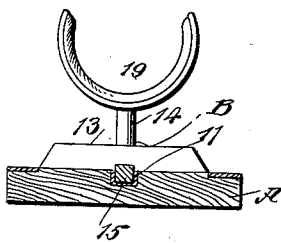
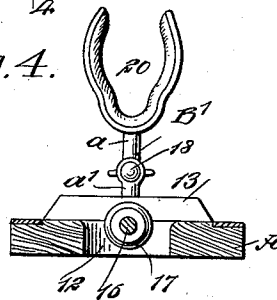


Fig. 4.



WITNESSES:

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UNITED STATES PATENT OFFICE.

THOMAS D. MCKOWN AND HARRY E. CLARK, OF CRIPPLE CREEK, COLORADO,
ASSIGNORS OF ONE-THIRD TO PATRICK BUTLER, OF SAME PLACE.

SURGICAL APPLIANCE.

SPECIFICATION forming part of Letters Patent No. 661,812, dated November 13, 1900.

Application filed February 21, 1900. Serial No. 6,056. (No model.)

To all whom it may concern:

Be it known that we, THOMAS D. MCKOWN and HARRY E. CLARK, citizens of the United States, and residents of Cripple Creek, in the county of Teller and State of Colorado, have invented a new and Improved Surgical Appliance, of which the following is a full, clear, and exact description.

The purpose of the invention is to provide an appliance adapted as a rest or support for a leg from the foot to the knee or a point above the knee, and to so construct the appliance that it will be adjustable and can remain without detriment upon the limb for any necessary period of time, and which will so support the limb that convenient access may be gained thereto at the sides, front, and back, enabling splints or bandages to be readily applied or the limb to be manipulated as required.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of the improved device. Fig. 2 is a longitudinal vertical section through the base portion of the device. Fig. 3 is a transverse section taken on the line 3 3 of Fig. 2, and Fig. 4 is a similar section taken on the line 4 4 of Fig. 2.

The base A is made of any suitable material and may be any desired length. The base is provided with a scale 10, in inches, located at each side and extending along the side edges, so that a surgeon will have a correct measurement lying along the uninjured limb and can take note the instant the injured limb is stretched the required length, or otherwise corrected. Slideways 11, preferably in the shape of U-irons, are provided in the upper surface of the base A, extending from a central longitudinal opening 12 to the end portions of the base, as is shown in Fig. 2. Battens 13 are located transversely upon the upper surface of the base, crossing the slideways 11, and, as shown in Fig. 3, the battens are provided with recesses corre-

sponding to the cross-sectional shape of the slideways 11 and registering therewith.

Supports B and B' are adjustably placed on the base A. These supports are angular, and one of them is adapted to occupy a position at or near the knee of the limb to be treated, while the other support is adapted to occupy a position at or near the foot of the limb. Each support consists of a vertical member 14 and a horizontal member 15, each horizontal member terminating at its inner end in an exteriorly-threaded section 16, which threaded sections of the supports enter a nut 17, located in the central opening 12 of the base, the nut having a right-hand thread at one end and a left-hand thread at the opposite end, and the threads on the supports correspond. The plain portions of the horizontal members 15 of the supports slide freely in the ways 11 and in the recesses of the battens 13. The vertical member 14 of the support B, which is adapted to be located near the knee of the limb, is in one piece, while the vertical portion of the foot-support B' is in two sections *a* and *a'*, pivotally connected by a bolt 18, usually provided with a thumb-nut. The hinged sections of the foot-support B' permit a surgeon to adjust the foot to the right or to the left and maintain the foot at any angle to the knee that is desirable.

The vertical portion of the knee-support B is attached to a cuff 19, adapted to receive the back portion of the limb and extend along the sides a desirable distance, and a second cuff 20 is attached to the corresponding portion of the foot-support B'. The foot-cuff is so shaped that it correctly conforms to the foot around the heel and to the instep of the foot at each side, while the knee-cuff is more or less semicircular. These cuffs may be constructed in any suitable manner, and they usually consist of an outer section of thin metal and an inner lining in the nature of a pad. The cuffs are held upon the limb by suitable straps and buckles 21. It will be observed that the device may be manipulated by one hand, since it is simply necessary to turn the nut 17, which may be conveniently done, and the supports will then be moved either inward or outward, according to the direction in which the nut is turned.

The device is most advantageously used and is of decided utility in setting all kinds of fractures and in reducing all dislocations of the leg from about two inches above the knee to the foot, and when the device is employed one surgeon can conveniently accomplish as much as two or three surgeons and assistants working under ordinary conditions. The device holds the leg some distance from the bed or operating-table, so that splints, dressings, and bandages can be expeditiously and conveniently applied. The cuffs can be quickly strapped to the foot and knee or the limb at a point above the knee and the fracture or dislocation reduced in but little time; yet the muscular contractions are so gradually overcome that the desired result is obtained with but slight pain to the patient while the broken or dislocated bones are being handled. The device may be retained on the limb indefinitely without destroying the circulation should the limb need such support.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. In a surgical apparatus, supports for a limb, a bearing for the supports, and an adjusting device connecting with and operating simultaneously the supports to or from each other.

2. In a surgical appliance, supports for a limb, a rest upon which the supports have end movement, means for holding the supports against lateral movement, and an adjusting device connecting the supports, which adjusting device is capable of moving both supports either toward or from each other.

3. In a surgical appliance, a base having a scale, supports having end movement upon the said base, cuffs carried by the supports, one of the supports having its portion connected with the cuff constructed in pivotally-connected sections, and a connecting device for the support, arranged to move the said supports in direction of or from each other.

4. A base, slideways produced in the base, angular supports, the horizontal members whereof have movement in the said slideways, the inner ends of the horizontal members of the supports having respectively right and left hand threads, the vertical member of one of the supports being in pivotally-connected sections, a nut connecting the horizontal members of the supports, the nut being correspondingly threaded, and cuffs carried by the upright members of the supports, for the purpose specified.

5. In a surgical appliance having a scale thereon, supports having upright and horizontal sections, which supports are mounted to slide on a base and having their inner ends threaded one with a right-hand and the other with a left-hand thread, a nut correspondingly threaded, which receives the threaded ends of the supports, and cuffs carried by the supports, one of the cuffs being adjustable.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

THOMAS D. MCKOWN.
HARRY E. CLARK.

Witnesses:

S. E. HEBERLING,
W. B. ANTRIN.