

R. J. P. Goodwin,
Surgical Splint.
No 58,403. Patented Oct. 2, 1866.

Fig: 1

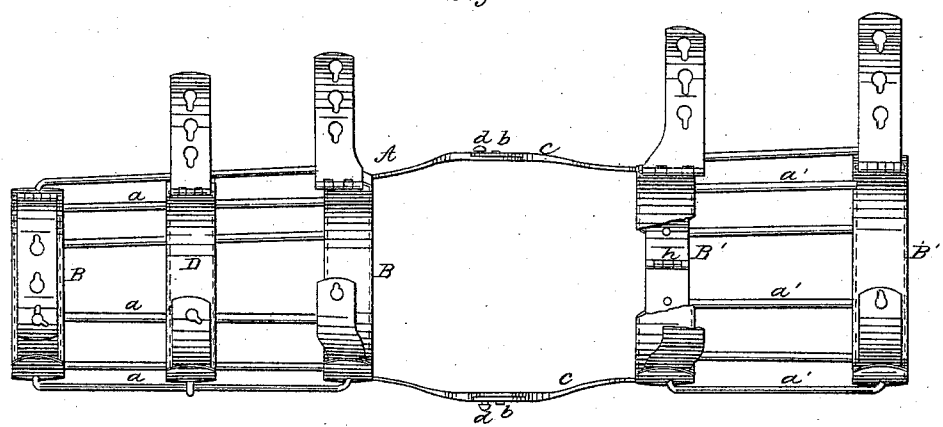
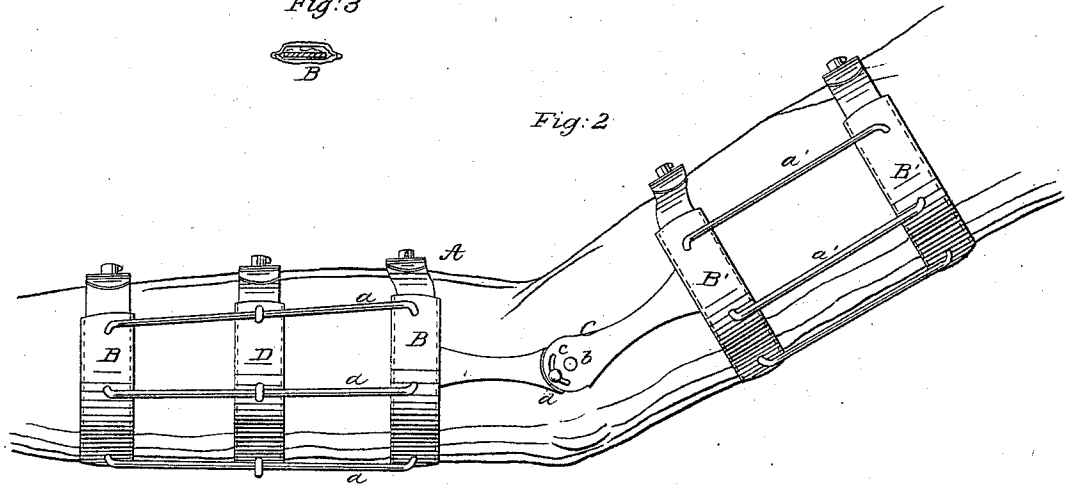


Fig: 3



Fig: 2



Witnesses:

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UNITED STATES PATENT OFFICE

RICHARD J. P. GOODWIN, OF MANCHESTER, NEW HAMPSHIRE.

IMPROVEMENT IN SURGICAL SPLINTS.

Specification forming part of Letters Patent No. **58,403**, dated October 2, 1866; antedated September 24, 1866.

To all whom it may concern:

Be it known that I, RICHARD J. P. GOODWIN, of Manchester, in the county of Hillsborough and State of New Hampshire, have invented a new and Improved Surgical Splint; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents a plan or inside view of this invention when open. Fig. 2 is a side elevation of the same when applied to an arm. Fig. 3 is a transverse section of one of the bands.

Similar letters of reference indicate like parts.

This invention relates to a splint, which is applicable for fractures of arms or legs, and also for curing deformities.

The invention consists, first, in the arrangement of an adjustable band, applicable above and below the joint, in combination with suitable guides and fastenings, in such a manner that the limb can be stretched during the operation of applying the splint, and after the splint has been secured the movable band can be readily adjusted over the fracture; second, in the arrangement of an adjustable stop composed of a set-screw moving in a segmental slot, in combination with the joint which forms the connection between the upper and lower portions of the splint, in such a manner that the joint of the limb to which the splint is applied can be adjusted and held in any desired position; third, in constructing the bands by means of which the splint is secured to the limb in two halves, connected with hinges, so that the same can be readily opened and applied to the limb with little trouble and loss of time; fourth, in the application to the metal splint of pads with a water-proof covering in such a manner that the same are protected against the injurious influence of moisture.

A represents a surgical splint made in two parts, one for the upper and the other for the lower portion of the limb. The lower part is composed of two bands, B, which are connected with

each other by a series of rods, *a*, and the upper part of two other bands, B', connected to each other by a series of rods, *a'*, and the two parts are hinged together by joints C. These joints are constructed of two arms, each of which terminates in round disks, through the centers of which pass the pivots *b*, and the outer disks are provided with segmental slots *c*, through which pass set-screws *d*, that are tapped with the inner disks of the joints, as shown. By means of the set-screws and segmental slots the joints can be adjusted in any desired inclination, according to the position in which the limb is to be held.

The rods *aa'*, which connect the bands B B', are stiff enough to keep the limb stretched, and by their use an open splint is obtained, which prevents the heating of the fractured limb, and which gives a chance to apply cold-water dressing and poultices without disturbing the bandage.

Between the bands B or B' is a movable band, D, which can be moved back and forth, being guided by the rods *a* or *a'*. After the splint has been applied to the limb by the bands B and B', the band D is adjusted over the fracture, and after the same has been secured the limb cannot be displaced. By this arrangement the limb can be stretched during the operation of applying the splint, and the position of the movable band can be readily adapted to the position of the fracture. If desired, more than one movable band may be applied between the same pair of stationary bands.

The bands B B' D are all covered with a water-proof covering of oil-silk or other suitable material, so that the metal parts thereof are protected against the injurious influence of moisture, and the coverings are stuffed, so as to form pads, which will not irritate the parts of the body to which the same are applied.

Hinge-joints *h* are applied to the bands B B' D, so that the bands can be readily opened and adjusted in the desired position.

When the splint is to be used in case of an exsection, an elastic band is used to facilitate the motion of the limb.

It will be readily understood that my splint

is equally applicable to arms and legs, and it can also be used with advantage for horses or other animals; and it is not only applicable in case of fractures of the limbs, but also for the purpose of curing deformities.

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

1. The adjustable band D, one or more, between the stationary bands B or B', in combination with the guide-rods *a* or *a'*, constructed and operating substantially as and for the purpose described.

2. The segmental slots *c* and set-screws *d*, in combination with the hinge-joints C, which

connect the two parts of the splint A, substantially as and for the purpose set forth.

3. The arrangement of hinge-joints *h* in the middle of the bands B B' D, or nearly so, substantially as and for the purpose described.

4. The application to the bands of waterproof pads, substantially as and for the purposes set forth.

The above specification of my invention signed by me this 20th day of October, 1865.

RICHARD J. P. GOODWIN, M. D.

Witnesses:

M. M. LIVINGSTON,

ALEX. F. ROBERTS.