

(No Model.)

A. S. ALOE.
FRACTURE APPARATUS.

No. 340,971.

Patented May 4, 1886.

Fig. 1.

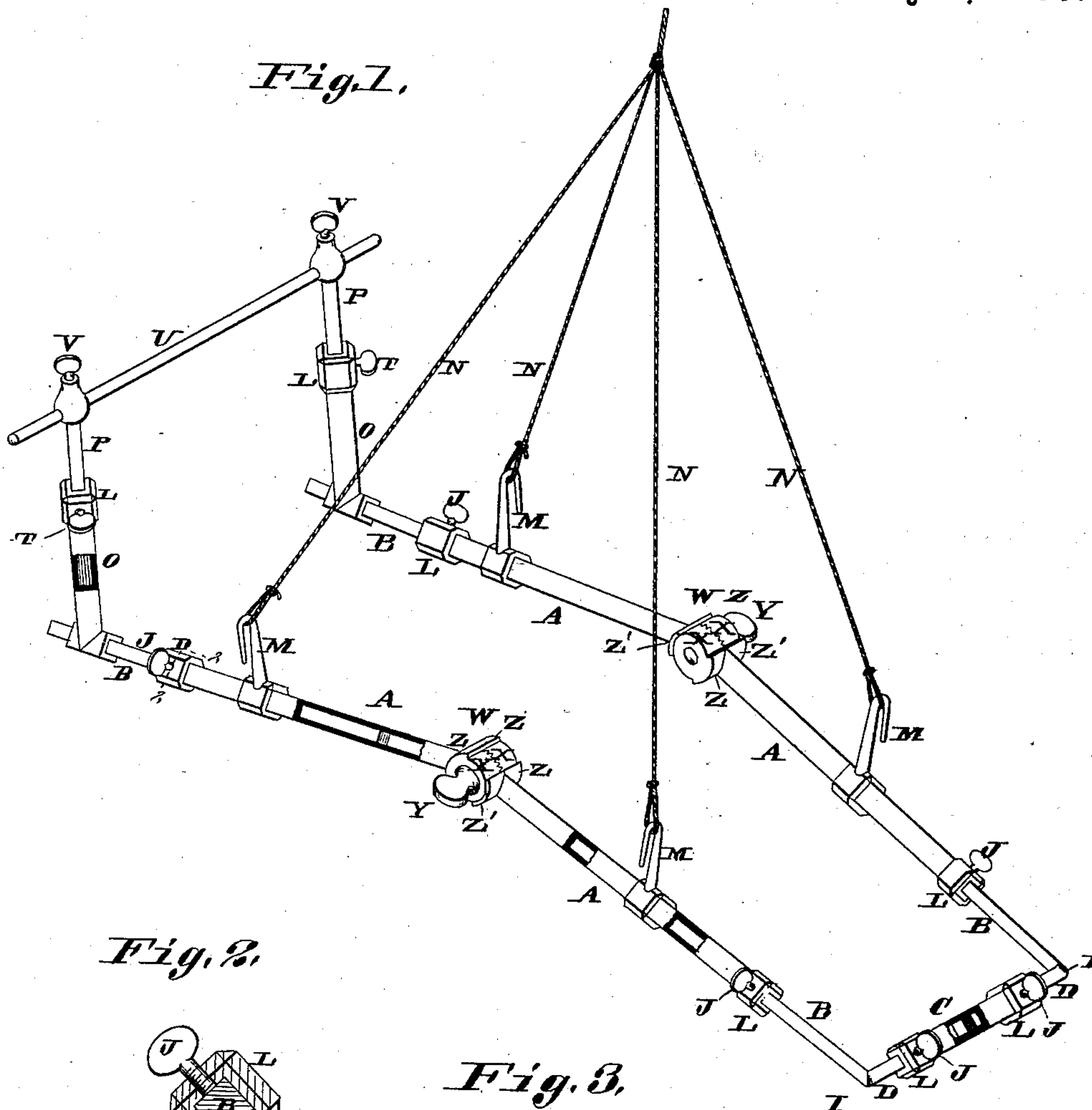


Fig. 2.

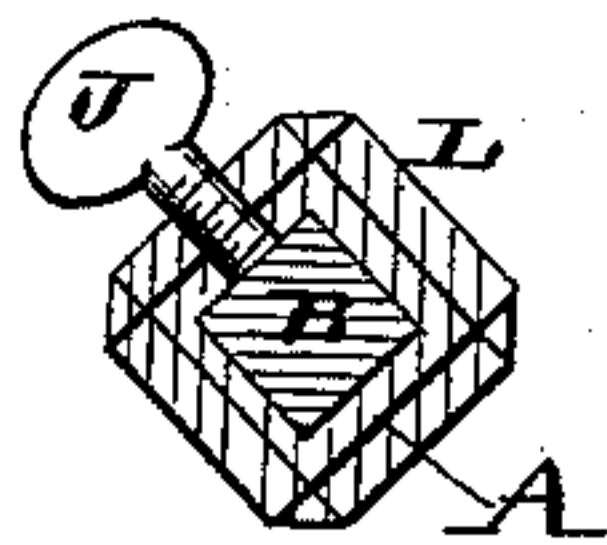


Fig. 3.

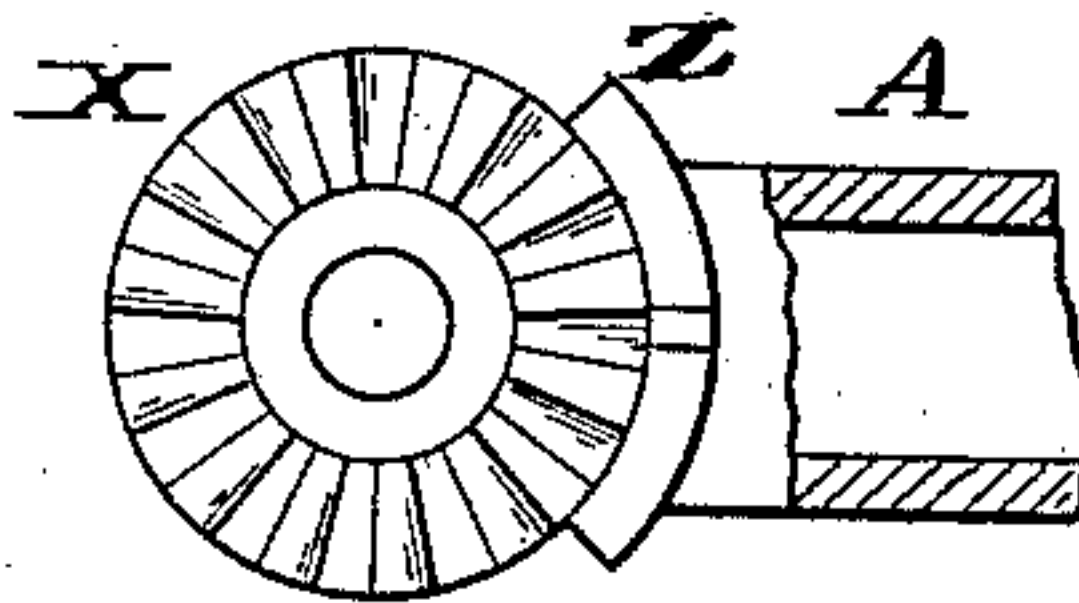
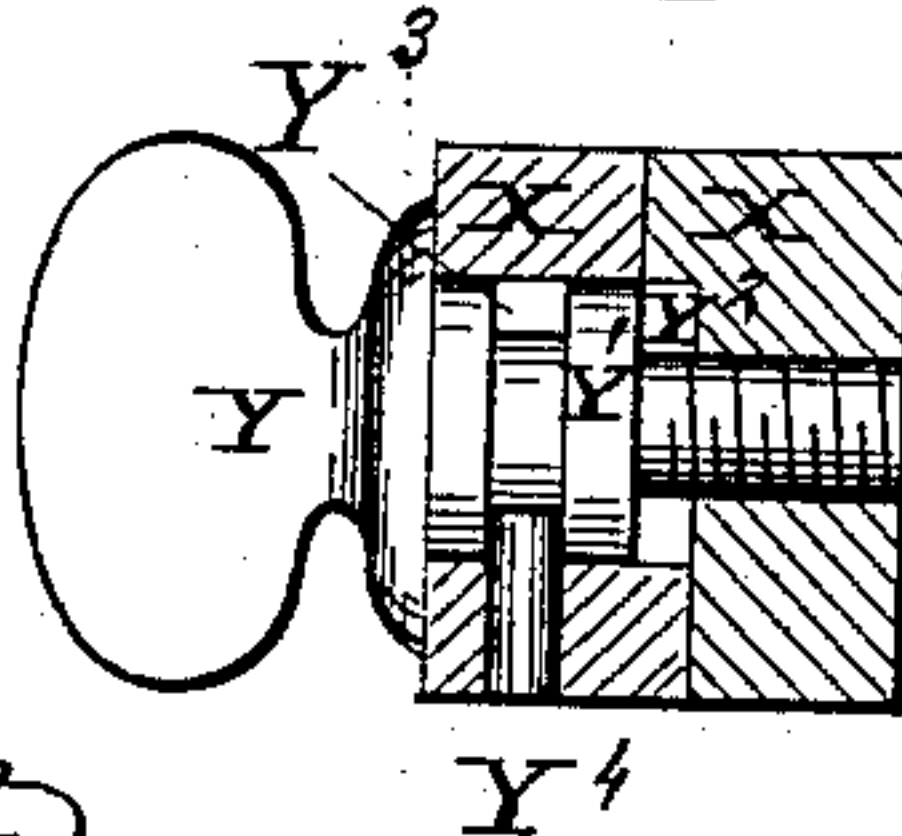


Fig. 4.



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FRACTURE APPARATUS.

SPECIFICATION forming part of Letters Patent No. 340,971, dated May 4, 1886.

Application filed December 21, 1885. Serial No. 186,326. (No model.)

To all whom it may concern:

Be it known that I, ALBERT S. ALOE, of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Splints, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, and in which—

Figure 1 is a perspective view of my improved splint, showing the suspending-cords. Fig. 2 is a section of one of the couplings, taken on line 2 2, Fig. 1. Fig. 3 is an enlarged detail view of one of the sides, showing the inside of one of the hinges; and Fig. 4 is an enlarged transverse section of one of the hinges, showing the set-screw in side view.

My invention relates to a splint for use on broken and fractured limbs to hold them in place; and my invention consists in features of novelty hereinafter fully described, and pointed out in the claims.

Referring to the drawings, A represents the inner parts or members of the sides of the splint, and B the outer parts or members.

C represents the inner parts or members of the end of the splint, and D the outer parts or members.

The outer parts or members of the sides are formed in one piece with the outer parts or members of the ends, respectively, being bent at I at right angles. The inner members of the sides and end are hollow, and are telescoped by the outer members, as shown, held to any adjustment by set-screws J in the inner members, (see Figs. 1 and 2,) which are preferably provided with flanges or enlargements L, through which the screws pass. By loosening the screws the outer members can be forced or shoved into or pulled out of the inner members, when the screws would be tightened again to hold them to their adjustment. The width and length of the splint can thus both be adjusted at will, and the parts can be entirely separated for shipment or storage or whenever desired. The inner members of the sides are provided with sliding hooks M, to afford convenient means for suspending the splint by means of suitable cords, N.

At the end of the splint not having the end

members described vertical hollow posts or members O project upward from the members B, and telescoping them are upper members, P, held to any adjustment by set-screws T, the same as just described. The members P are connected at top by a rod, U, passing through them, and held to any adjustment by the set-screws V passing down from the tops of the posts. These permit the lateral adjustment of this end of the splint to correspond with the adjustment of the other end, and also permit the disconnection of the parts.

The inner members of the sides are formed in two parts, each hinged together at W, each member having a head, X, serrated or notched on its inner face, and the two serrated faces (of each hinge) fitting together, as shown, are held by a set-screw, Y, having a collar, Y', fitting in an enlarged opening, Y², in one of the heads, (see Fig. 4,) and having a circumferential groove, Y³, receiving a transverse pin, Y⁴, in the head. The set-screws are thus permitted to turn and screw into the inner heads, to tighten and loosen the hinges, but are held from being taken out, so they cannot be lost, and this arrangement not only causes the heads to be loosened, but forces them apart, when the screws are turned in this direction, unlocking the notches of the heads, so that the hinges can be worked freely when it is desired to change the longitudinal shape of the splint.

The inner end of each member A has a concave flange, Z, to which the heads are secured, respectively, each flange having one of the heads secured to or formed upon it, and its concave projecting part Z' fits the rounding face of the other head at this side of the splint, thus forming a strong and secure hinge.

It will be observed that the parts are all represented as being square in cross-section, so that one cannot turn within the other. This is a great help in applying the splint, as when the set-screws are all loose the parts are not free to turn and twist in any and every direction. I do not, however, desire to limit myself to the use of square members, as it is obvious that the same end may be accomplished by forming them of any non-circular shape.

I claim as my invention—

1. In a fracture apparatus, the combination,

with the members A, having the heads X, serrated on their meeting faces, of the set-screw Y, tapped into the head of one member and swiveled in the other, as and for the purpose set forth.

2. In a fracture apparatus, the adjustable sides, in combination with the adjustable ends, the inner members of both being hollow and telescoped by the outer members, held to any adjustment by set-screws.

3. The combination, with the hollow side members, A A, and the hollow end member, C, of the members B, each bent and received

at its respective ends in one end of said end member C and one of the members A, and the set-screws J, for securing the parts in place, as set forth.

4. A splint having hinged sides provided with heads connected by grooved set-screws, in combination with pins fitting in the grooves of the screws, substantially as and for the purpose set forth.

ALBERT S. ALOE.

In presence of—

SAML. KNIGHT,
BENJN. A. KNIGHT.