

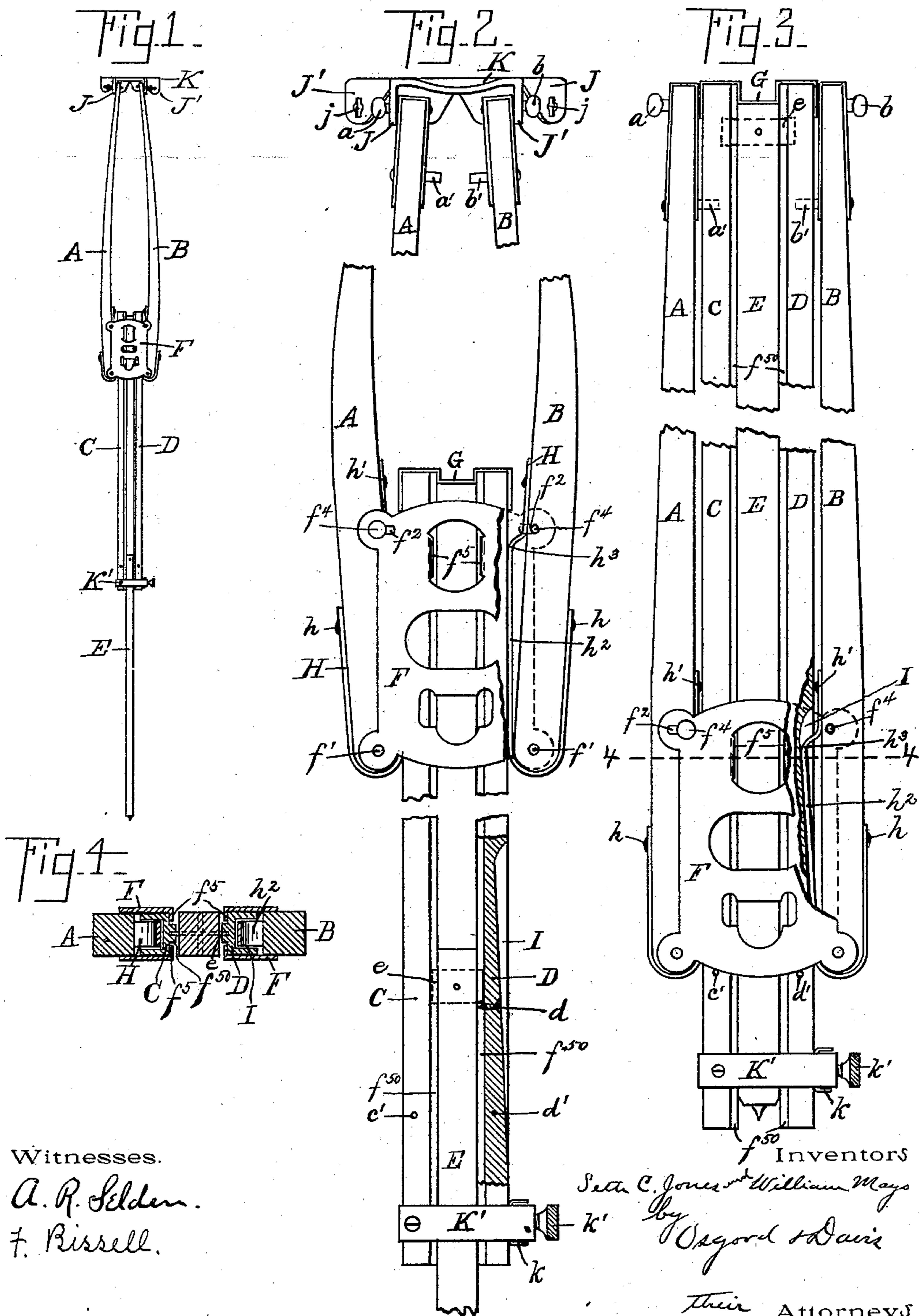
No. 624,340.

Patented May 2, 1899.

S. C. JONES & W. MAYO.
TRIPOD STAND.

(Application filed Nov. 29, 1898.)

(No Model.)



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UNITED STATES PATENT OFFICE.

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TRIPOD-STAND.

SPECIFICATION forming part of Letters Patent No. 624,340, dated May 2, 1899.

Application filed November 29, 1898. Serial No. 697,784. (No model.)

To all whom it may concern:

Be it known that we, SETH C. JONES and WILLIAM MAYO, citizens of the United States, and residents of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Tripod-Stands, of which the following is a specification.

Our invention relates to tripod-stands, and has for its object to provide a tripod-stand that is light and capable of reduction to small compass when not in use, that may be quickly and easily adjusted for use, and that has movable parts adapted to be firmly clamped when in the selected positions.

In the drawings, Figure 1 is an elevation of one of the legs of the tripod-stand embodying our invention attached to the head of the stand and fully extended. Fig. 2 shows in elevation portions of the same leg from which part of the plate has been removed and one of whose members has been cut away to show the positions of certain of its parts. Fig. 3 is also an elevation of the leg, showing the several members closed together and also having a portion of the plate removed and a part of one of its members cut away to show the position of certain of its parts; and Fig. 4 is a cross-section on the line 4 4 of Fig. 3.

In the drawings, A, B, C, D, and E represent, respectively, the several members of the tripod-leg. In the form shown each of these members is a rectangular rod or bar and is preferably, for most purposes, made of wood. Each of the members A and B is pivotally secured by a pin f' between a pair of connecting-plates F. In the plates, at points equidistant from the pivots f' , slots f^2 are cut, so that the slot in each plate shall be opposite the slot in the other plate. The pins f^4 are passed through said slots in said plates F and are fastened in said members A and B, respectively, so that the pins f^4 are free to work within said slots, and the said members A and B of the leg may each be turned upon its pivot f' , and the members may be spread apart or brought together to the extent permitted by the length of the slot, as shown in Fig. 2. The leg shown in the drawings has three members between the said outer mem-

bers A and B and the said plates F, all of which members are capable of longitudinal movement with reference to said members A and B and are guided by the plates and their appurtenances. The inner members C and D are preferably joined together by a plate G, which is fastened to their upper ends, so that said members move together longitudinally. Between the inner members C D is the longitudinally-sliding member E. Said member E is adapted to be drawn out from between the members C and D, thus rendering the leg capable of further extension. Stops, hereinafter to be described, serve to retain the inner members C and D between the members A and B beyond a fixed point, and a stop device retains the member E between the members C and D.

Our invention, among other features hereinafter to be referred to, consists of clamping mechanism for holding the inner members C and D stationary with reference to the outer members A and B when the leg shall have been extended to the desired degree.

The form of our device shown in the drawings comprises a strip H, of brass, steel, or other suitable material, secured to the outer face of one or both of the outer members A and B, respectively, as by screws h , and bent over the ends of said members and secured to the inside of said members, as by screws h' . That part h^2 of each of said strips H which lies between the said legs is cut away on each side, so as to be somewhat narrower than the inner side of said members A and B, to which they are attached, and a shoulder h^3 is formed thereon near its end, so that said portions h^2 of said strips respectively project from said inner side of said members A and B. Grooves I are cut in the outer sides, respectively, of the two members C and D, which grooves are of such width and depth as to contain the projecting parts h^3 of said strips H. The metal strips H, formed and applied as shown, are employed to strengthen the wooden rods A and B, particularly where the pins f' and f^4 pass through them; but it is obvious that various modifications of the strip H may be employed.

When the tripod is not in use, the interme-

diates members C and D of the leg are slid up within the members A and B until the projecting portions h^2 of the strips H come opposite, respectively, the grooves I in the said members C and D. The members A and B are now folded in upon the other members, and the portions h^2 of said strips lie within the grooves I, as shown in Fig. 3, thus folding the members closely together. When the leg is slid together and folded, as in Fig. 3, inwardly-projecting pins a' and b' on the members A and B fit into sockets (see dotted lines, Fig. 3) in the outer sides of the members C and D, respectively, and hold the members more firmly together.

Inwardly-turned ears f^5 , projecting from the plates F, extend over the inner edges of the members C and D and retain those members in their proper positions with reference to the clamping outer members A and B, but permit the members C and D to slide between the plates F, ears f^5 , and members A and B as guides. For compactness grooves f^{50} are cut in the edges of the members C and D, wherein the ears f^5 may slide. When the leg is to be used, its outer members A and B are spread apart, as shown in Fig. 2, and the inner members are slid down until the legs have been extended as much as is desired. If now the free ends of the outer members A and B are pressed together, the projections on those members, consisting of the projecting portions h^2 of the strip H, are forced against the outer faces of the intermediate members C and D, and said members C and D are thereby clamped against the ears f^5 and are held stationary with reference to said members A and B, and we thus provide means for clamping an intermediate member or members between the outer members by the action of one or both of the outer members.

It is evident that a single intermediate member may be employed in place of the three members C, D, and E, hereinbefore described, and that such members can be clamped and held stationary with reference to the outer members A and B without the use of the projecting strips h^2 by simply pressing together said members at their upper ends until they are forced against said intermediate members. It is also evident both when a single intermediate member is employed and when the construction shown in the drawings is used that the inner and outer members may be clamped, so as to prevent relative longitudinal movement, by the use of a projection on the inner side of but one of said outer members.

We have shown a base-plate for the tripod-stand, which is made from a sheet of suitable metal and has a series of ears J J' turned down from its edges to form pairs. Through each of these ears is cut a slot j , having in the middle an enlarged portion, in which the pins $a b$, which project from the outer sides of the members A and B, respectively, near their

ends, may lie, the slots permitting the insertion of the flattened heads of said pins when the leg is held in a particular position with reference to said base-plate.

If when the tripod-leg has been extended by sliding the members C and D out from the collapsed position between the members A and B, as above described, the members A and B are sprung toward each other and retained in that position, as shown in Fig. 1, bringing the said parts h^2 of the strips H firmly against the outer sides of the members C and D, respectively, and the ends of the members A and B are brought between the ears J J' on the base-plate or head K and the pins $a b$ are set in the sockets j , the members C D will be locked in their extended position.

Our device will operate as well in combination with any other form of base-plate which when it is attached to the tripod-legs holds the members A and B in a sprung or compressed condition. Furthermore, we do not limit our invention to the form of the device shown for accomplishing the results above set forth, for it is obvious that they are capable of various modifications.

A metallic guiding-strip (marked e in the drawings) is secured in a slot in the upper end of the member E (see Fig. 4) and is adapted to slide within grooves of suitable size that are cut in the inner sides of the members C and D, whereby the upper end of said member E is retained between the said other members. We have also shown a pin d , which when said strip e comes in contact with it prevents said member E from being further withdrawn, and also a plate K', secured to the lower end of one of the members C and D and passing around the other of said members, through which plate the thumb-screw k' passes and presses the member D, for instance, against the member E through an interposed block k , by which the member E may be held either when extended or when slid up between its adjacent members.

Pins $c' d'$, projecting from the surface of the members C D, act as stops to the upward movement of said members by coming in contact with the upper plate F.

The ends of the members C and D are joined by a plate G, that is in position to strike against the ears f^5 on the plate F, and thus to prevent the inner movable part of the leg from being pulled out from between the outer members A and B, and the plate K' prevents the inner part from being withdrawn in the other direction.

The projection h^3 on the strip H is preferably near the pivoted end of the movable member A or B in order that the leverage for producing the clamping effect may be sufficient.

What we claim is—

1. In a tripod-stand, legs, each consisting of a member adapted to slide longitudinally between two outer members; in combination

with said two outer members, means for supporting said outer members upon said intermediate member, one of said outer members being movable to and from said intermediate member, whereby the movable outer member and the intermediate member are releasably clamped together.

2. In a tripod-stand, legs, each consisting of an intermediate member adapted to slide longitudinally between two outer members; the combination with said two outer members, means for supporting said outer members upon said intermediate member, both of said outer members being movable to and from said intermediate member, whereby the movable outer members and the intermediate member are releasably clamped together.

3. In a tripod-stand, legs, each consisting of two outer members pivotally secured to a connecting-plate at their lower ends, and an intermediate member adapted to slide longitudinally between said outer members and said plate, said outer members being adapted to clamp said intermediate member between them, whereby said intermediate member is held stationary with reference to said outer members.

4. In a tripod-stand, legs, each consisting of two outer members pivotally secured to a connecting-plate at their lower ends, and one of said members having a projection from its inner side near its pivoted end, and an intermediate member sliding longitudinally between said outer members; and a base plate or head having means for holding the free ends of said outer members in inwardly-sprung positions, for clamping said intermediate member by said projection, whereby said intermediate member is held stationary with reference to said outer members.

5. In a tripod-stand, legs, each consisting of two outer members pivotally secured to a connecting-plate at their lower ends, and each member having a projection from its inner side near its pivoted end, and an intermediate member sliding longitudinally between said outer members, and a base plate or head having means for holding the free ends of said outer members in inwardly-sprung positions, for clamping said intermediate member by said projections, whereby said intermediate

member is held stationary with reference to said outer members.

6. In a tripod-stand, legs, each consisting of two outer members pivotally secured to a connecting-plate at their lower ends, and one of said members having a projection from its inner side near its pivoted end, and an intermediate member sliding longitudinally between said outer members, and having a recess adapted to receive said projection; and a base plate or head having means for holding the free ends of said outer members in inwardly-sprung positions, for clamping said intermediate members by said projection, whereby said intermediate member is held stationary with reference to said outer member.

7. In a tripod-stand, legs, each consisting of two outer members pivotally secured to a connecting-plate at their lower ends, and each of said members having a projection from its inner side near its pivoted end, and an intermediate member adapted to receive said projections; and a base plate or head having means for holding the free ends of said outer members in inwardly-sprung positions, for clamping said intermediate member by said projections; whereby said intermediate member is held stationary with reference to said outer members.

8. In a tripod-stand, legs, each consisting of two outer members, pivotally secured to a connecting-plate at their lower ends; three intermediate members sliding between said outer members, the two outer of said intermediate members being connected so as to slide together; an ear rigidly secured to said connecting-plate and projecting between the central member and one of the adjacent intermediate members; and means for clamping said last-mentioned intermediate member by that one of the outer members which is adjacent thereto, whereby the two intermediate members which are on either side of the central member are held stationary with reference to said outer members.

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