

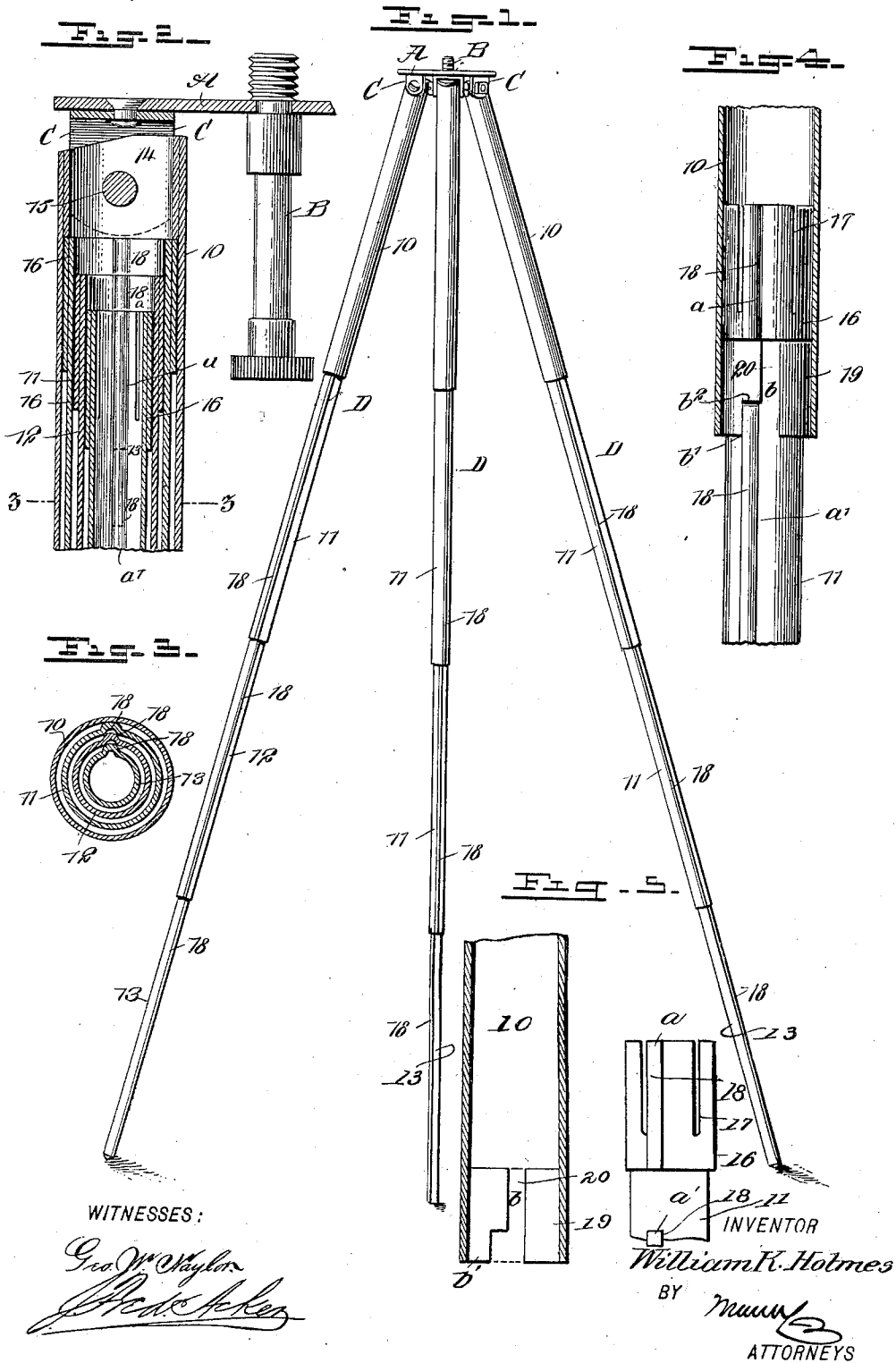
No. 701,042.

W. K. HOLMES.
TRIPOD.

Patented May 27, 1902.

(Application filed June 3, 1901.)

(No Model.)



UNITED STATES PATENT OFFICE.

WILLIAM K. HOLMES, OF BROOKLYN, NEW YORK.

TRIPOD.

SPECIFICATION forming part of Letters Patent No. 701,042, dated May 27, 1902.

Application filed June 3, 1901. Serial No. 62,960. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM K. HOLMES, a citizen of the United States, and a resident of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Tripod, of which the following is a full, clear, and exact description.

The purpose of the invention is to provide a tripod having legs constructed in telescopic sections, the construction of the legs being such that when drawn out to their full extent they may be held in their extended or lengthened position by simply turning the sections slightly in one direction and so that when the sections of the legs are to be folded or the legs are to be reduced in length upon turning the sections of the legs to the same extent in an opposite direction the various sections of the legs may be made to enter one another, reducing the length of the tripod practically to the length of the first or upper sections of the legs.

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 side elevation of the improved tripod, showing the legs fully extended. Fig. 2 is an enlarged vertical section through the upper portion of one of the legs with the sections thereof closed or telescoped. Fig. 3 is a transverse section taken practically on the line 3-3 of Fig. 2; and Fig. 4 is a longitudinal section through a portion of the upper section of a leg, the locking-sleeve thereof being shown in side elevation, and the said view also represents a side elevation of the next or entering section of the leg. Fig. 5 is a sectional view of the lower end of one section and an elevation of the upper end of the section immediately below the same.

A represents the table or tripod-head, which may be of any suitable construction or material, B the attaching-screw for the table, and C the lugs which extend down from the table and to which the legs D of the tripod are pivoted. These legs are preferably made of metal, although any other material may be used, and said legs are made in sections,

usually four tubular sections 10, 11, 12, and 13. All of the sections below the first section of a leg are adapted to close up in the upper section, and thus reduce the length of the tripod when it is to be carried or to be packed away to practically the length of the upper section of the leg.

The upper section 10 of each leg is provided at its top or upper end with an interior sleeve or collar 14, and the pivot-pins 15, which pass through the lugs C from the table A, likewise pass through these collars or sleeves 14 when the legs are pivotally connected with the table, as is shown in Fig. 2. Each section of each leg, with the exception of the upper section 10, is provided at the top with an exterior sleeve 16. This sleeve is provided with longitudinal slots 17, registering with corresponding slots made in the upper end of the sections to which the sleeves 16 are secured, so that the upper ends of the sections of the legs below the upper sections will have frictional engagement with the interior of the sections in which they are designed to have movement. The exterior slotted sleeves 16 may be secured to the sections of the leg in any suitable or approved manner; but preferably they are held in position by exterior ribs 18, extending practically from end to end of each section except the upper section of the leg, the sleeves 16 being split or interrupted, so as to engage with opposite sides of the said ribs. These ribs, as shown in Fig. 3, may be produced by forcing outward the metal of which the sections are constructed, and below each slitted sleeve 16 the rib 18 is filed away or is otherwise removed, so that the ribs of the sections of the legs below the upper section are in two members—an upper member *a* and a lower member *a'*, as is best shown in Fig. 4.

At the lower end of each section of a leg except the lowermost section an interior collar 19 is secured. Each collar is interrupted by a longitudinal slot 20, extending from top to bottom, and said slot comprises a vertical member *b* and an enlarged horizontal bottom member *b'*, forming thereby a shoulder *b''*, as is also shown in Fig. 4. The slots 20 in the interior collars 19 are so located that when the sections of the legs are turned in a manner to bring the lower members *a'* of the ribs 18 in alinement with the vertical portions *b* of the said slots the various sections of the legs may be telescoped one in the other; but

when the sections of the legs are drawn out to their full extent and the sections below the upper sections 10 are turned in a reverse direction the upper ends of the lower members ⁵ *a'* of the ribs 18 are brought below the shoulders *b*² of the interior sleeves 19, thus preventing the sections from moving upward or telescoping and holding the sections of the legs firmly in their extended positions. When ¹⁰ the sections of the legs are telescoped, the split collar 16 of the sections 11 of the legs engages with the inner sleeve or collar 14, secured to the upper portions 10 of the legs, thus limiting the upward movement of the said ¹⁵ sections, and when the legs are extended the downward movement of the sections 11 12 13 is limited by reason of the lower edges of the split exterior sleeves 16 engaging with the upper edges of the interior sleeves or collars ²⁰ secured to the section in which another section has movement, as is shown in Fig. 4. The upper section 10 of each leg is not provided with an exterior rib 18, as is shown in Figs. 2 and 3, since the exterior of the rib of ²⁵ the next lowest sections 11 of the legs will have sufficient frictional engagement with the interior of the upper sections 10 to hold these two sections one in engagement with the other when one is telescoped in the other.

³⁰ It will be observed that the sleeve or collar 19, interrupted by the slot 20 and provided with the shoulder *b*², forms one member of a jointed coupling and that the rib 18, interrupted or cut away, as above described, forms ³⁵ another member of the coupling, whereby any two adjacent sections of the legs may be securely united.

In Fig. 5 are shown the same parts that appear in Fig. 4, but separated for the purpose ⁴⁰ of clearness. When the parts are secured in place relatively to each other, as shown in Fig. 4, they cannot readily be separated, as the lower edge of the sleeve 16 rests upon the upper edge of the collar 19.

⁴⁵ It will be observed that a tripod constructed as above described may be made exceedingly light and that its legs may consist of any desired number of sections and that all of the sections of a leg below the upper section 10 ⁵⁰ may be telescoped one into the other and all of said sections be made to enter the upper section 10. When the sections 11, 12, and 13 are folded or brought to telescopic position, their ribs 18 travel in grooves in the inner ⁵⁵ faces of the sections formed by striking outward the said metal to produce the said ribs 18, as is illustrated in Fig. 3. It will be also observed that the sections of a leg may be ⁶⁰ instantly brought into position for telescoping by turning the section as above described, thus producing an article which may be conveniently extended or telescoped, as occasion may demand.

Having thus described my invention, I ⁶⁵ claim as new and desire to secure by Letters Patent—

1. In a tripod, a leg, comprising an upper

tubular section and series of lower tubular sections, the sections being arranged to telescope one within the other, the sections below the upper section having each a rib constructed in two members, a space intervening the said members, a sleeve secured interiorly at the bottom of all of the sections of the legs with the exception of the lowermost ⁷⁵ section, each of said sleeves having a slot enlarged at its bottom, forming a shoulder adapted for engagement with the upper portion of the lower rib member of an entering section of the leg, as described. ⁸⁰

2. In a tripod, a leg comprising an upper tubular section and series of tubular sections below the upper section, all of the said sections being adapted to telescope, each section below the upper section having an exterior ⁸⁵ spring-sleeve at its upper end, and each section below the upper section being provided with an exterior longitudinal rib in two members, said members being separated yet in horizontal alinement, and a sleeve secured to ⁹⁰ the lower end of each section of the leg with the exception of the bottom section, the said sleeve being at the interior of the said sections and provided with a longitudinal slot comprising a longitudinal member and an enlargement at the lower end of said member, forming a shoulder, the said shoulders in the ⁹⁵ extended position of the sections of the leg being adapted to engage with the upper ends of the lower members of the ribs of ¹⁰⁰ said sections, as described.

3. A tripod, comprising a platform and a plurality of legs, said legs being made of tubes telescoping one within the other, the ¹⁰⁵ outer tubes being cylindrical and the inner tubes being provided with longitudinal ribs, all of said tubes excepting the inner ones being provided with internal sleeves, and all except the outer ones being provided with ¹¹⁰ external sleeves, all of said sleeves being interrupted for the purpose of slidably engaging said ribs.

4. A tripod, comprising a platform, and a plurality of legs, said legs being made of tubes telescoping one within the other, the ¹¹⁵ outer tubes being cylindrical and the inner tubes being provided with longitudinal ribs partially cut away to form jointed members, all of said tubes except the inner ones being provided with internal sleeves and all except ¹²⁰ the outer ones being provided with external sleeves, all of said sleeves being interrupted for the purpose of slidably engaging said ribs, said internal sleeves being also cut away to form jointed members mating the jointed ¹²⁵ members formed by cutting away the longitudinal ribs.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM K. HOLMES.

Witnesses:

J. FRED. ACKER,

EVERARD B. MARSHALL.