

Feb. 6, 1923.

B. W. STARKWEATHER.
 LEGGED ARTICLE.
 FILED MAY 17, 1921.

1,444,569.

2 SHEETS—SHEET 1.

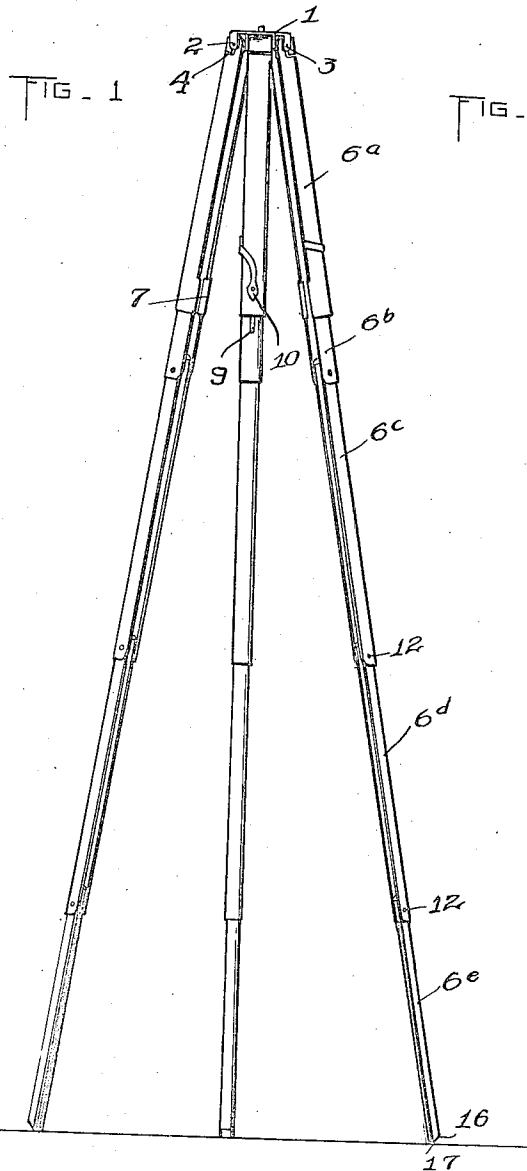


FIG. 2

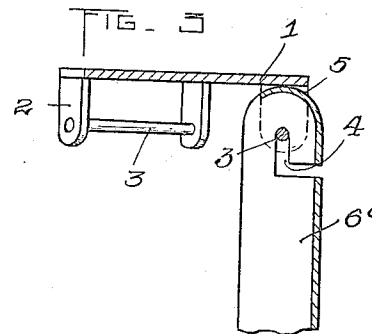
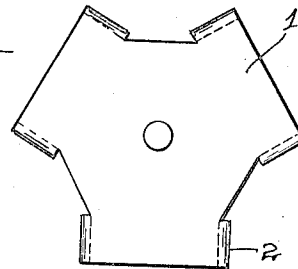
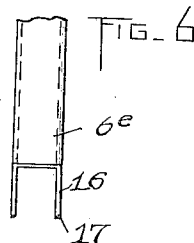
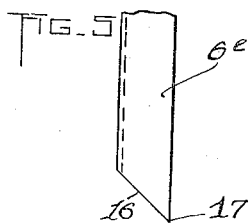
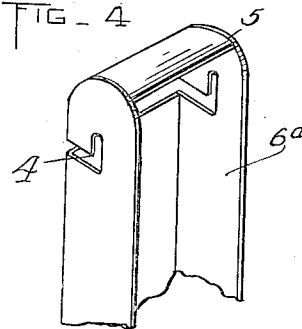


FIG. 4



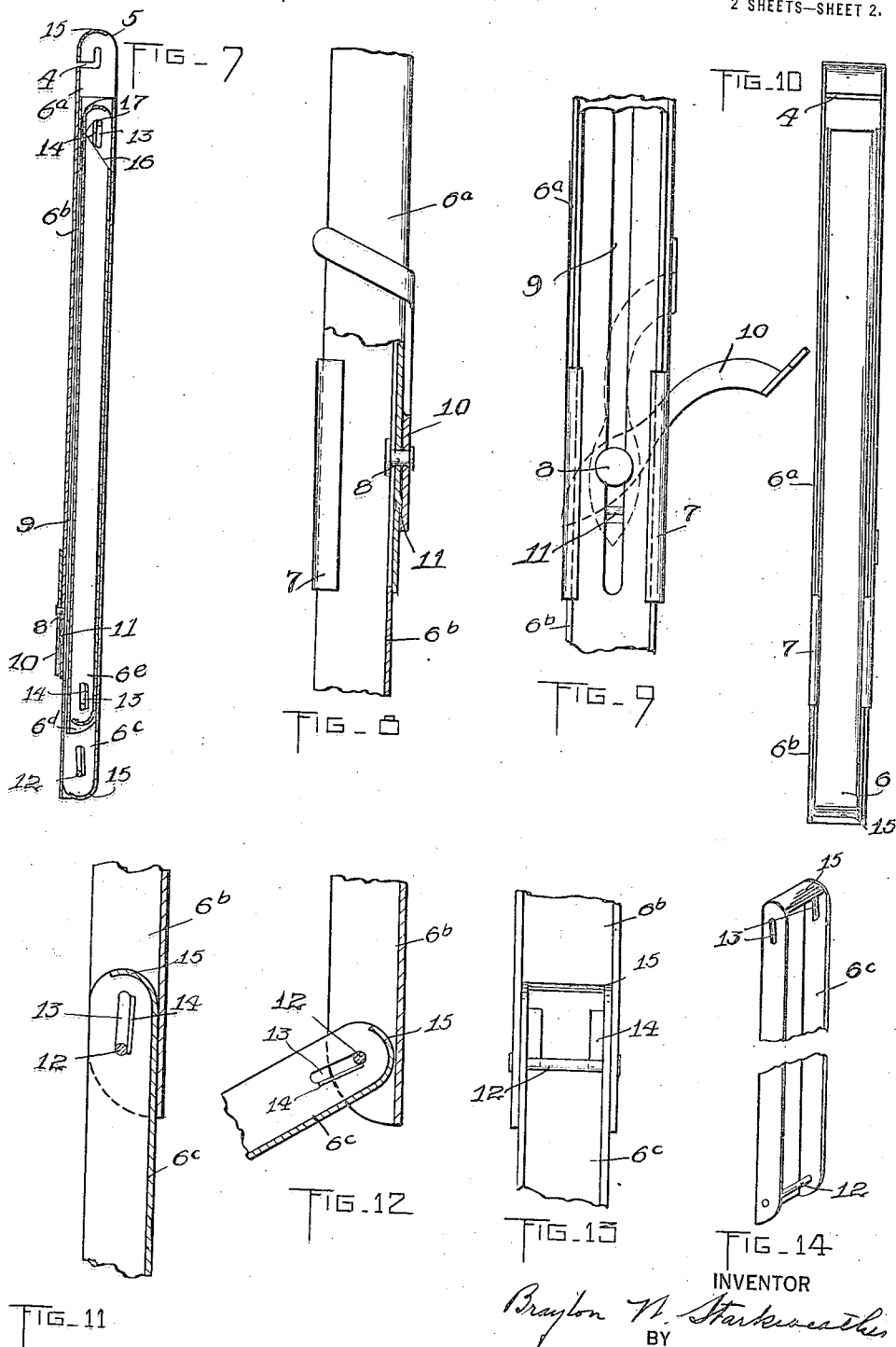
INVENTOR
Brayton W. Starkweather
 BY
Daniel T. Sumner
 his ATTORNEYS

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2 SHEETS—SHEET 2.



INVENTOR
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 BY
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UNITED STATES PATENT OFFICE.

BRAYTON W. STARKWEATHER, OF EAST ROCHESTER, NEW YORK, ASSIGNOR OF ONE-HALF TO EMILY W. JOYCE, OF EAST ROCHESTER, NEW YORK.

LEGGED ARTICLE.

Application filed May 17, 1921. Serial No. 470,401.

To all whom it may concern:

Be it known that I, BRAYTON W. STARKWEATHER, a citizen of the United States, and resident of East Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Legged Articles, of which the following is a specification.

The present invention relates to legged articles and particularly to the type such as a tripod provided with a body or head to which the legs are connected, an object of this invention being to provide an improved connection between the legs and the head or body which will permit the legs to swing at different angles to the head or body, while at the same time to be readily connected to or disconnected from such head or body. Another object of the invention is to provide a leg formed of a number of sections foldably connected together to permit the folding of the leg, while, at the same time, being constructed so that when the leg is extended, it will be held rigidly against accidental folding. A further object of the invention is to provide a leg having an extensible joint of novel construction which will permit an increase or decrease in the length of the leg, while effectively securing the leg in its adjusted position.

To these and other ends, the invention consists of certain parts and combinations of parts all of which will be hereinafter described, the novel features being pointed out in the appended claims.

In the drawings:—

Fig. 1 shows a tripod in elevation embodying the present invention;

Fig. 2 is a plan view of the head or body;

Fig. 3 is a sectional view through the head showing the manner in which one of the legs connects therewith;

Fig. 4 is a fragmentary perspective view of the upper end of one of the legs;

Figs. 5 and 6 are, respectively, fragmentary views of one side and the outer face and the lower end of one of the legs;

Fig. 7 is a vertical section through one of the legs showing the latter in folded position;

Fig. 8 is a fragmentary view partially in section, showing the extensible joint between two of the leg sections;

Fig. 9 is a fragmentary view of the inner face of the extensible joint;

Fig. 10 is a view of the inner face of one of the legs showing the latter folded;

Fig. 11 is a fragmentary sectional view of one of the hinged joints of one of the legs, showing the joint in extended position;

Fig. 12 is a similar view showing the manner in which the joint folds;

Fig. 13 is a fragmentary view of the inner face of the hinged joint; and

Fig. 14 is a perspective view of one of the intermediate sections of the leg.

The invention is herein illustrated as embodied in a tripod, but it is apparent that it is not limited to use in such a device. The head or the body 1 of the device is, in this instance, formed of a metal plate cut to provide three pairs of ears 2, the ears being bent laterally with reference to the metal and the members of each pair lying parallel and preferably connected by a pivot pin 3. The legs, in this instance, are three in number and each is provided near its upper end with an L-shaped slot 4, one arm of the slot intersecting the outer face of the leg and the inner arm of the slot extending toward the upper end of the leg. The upper end is curved at 5 substantially about the center of the upper end of the slot 4 and cooperates with the under surface of the head 1 as shown in Fig. 3. The pin 3 extends through the slot 4 and, when lying in the upper end of said slot, serves to retain the leg in connection with the head, while at the same time permitting the swinging of said leg. If the leg be swung to a position with its length substantially parallel with the plane of the head 1, then the leg may be moved longitudinally with reference to the head until the other arm of the slot is reached when the head and leg may be separated. The upper portion of the leg is, in this instance, in channel form or substantially U-shape in cross section, the slot 4 being formed in both sides of the channel and opened through the connecting portion between the sides. So that the end may be rounded at 5, the connecting portion is extended beyond the sides and is bent or rolled between the sides, as shown in Figs. 3 and 4, the sides and the extension being soldered or otherwise secured together.

The legs are preferably extensible and foldable, and to this end may embody a number of portions 6^a, 6^b, 6^c, 6^d and 6^e, each formed of channeled stock of substantially

U-shape in cross section, the sizes of the portions decreasing from the upper portion to the lower portion so that each successive portion may be received in the one above it.

5 The two upper portions or sections 6^a and 6^b of each leg may be relatively adjustable lengthwise so as to vary the length of the leg, and to this end the section 6^b slides within the section 6^a, the section 6^a having extensions 7 bent inwardly from its sides to cooperate with the side edges of the portion 6^b. A headed projection 8 may be arranged on the section 6^a and operate in a longitudinally extending slot 9 in the connecting portion of the section 6^b. On the outer face of the member 6^a a lever 10 may be mounted to turn on the pin 8 in order to cooperate with a projection 11 formed on the outer face of the member 6^a so that the head of the pin 8 is drawn firmly against the inner face of the member 6^b on opposite sides of the slot 9 to effect the binding engagement with the sections 6^a and 6^b.

10 The sections 6^b, 6^c, 6^d and 6^e may be foldably connected together and to this end, the lower end of each of said sections, with the exception of the lower section, is provided with a pivot pin 12 connecting the side flanges of the section, while the upper end of each of said sections, with the exception of the section 6^b, has its side flanges provided with slots 13 through which a pin 12 extends, these slots being slightly inclined with reference to the length or longitudinal axis of the section in which they are provided. One end of the slot is located at such a distance from an end of the section so that the section may swing on a pin 12 as a pivot, as shown in Fig. 12. With the end in view of preventing the pin from wearing out that wall of the slot sustaining the greatest pressure of the pin, the metal of the side flange cut out to provide the slot 13 is bent inwardly at 14 so that the pin 12 has bearing upon such inwardly turned portion. To facilitate the turning of the section, its slotted end is curved substantially about the center of the outer end of the slot, this result being secured by providing an extension 15 on the metal piece 6 and curving said extension between the side flanges as illustrated in Fig. 12, the extension being soldered or otherwise secured to said side flanges.

With the object in view of causing the lower ends of the legs to readily engage a surface to prevent the slipping thereof, the ends are bevelled at 16 so that their side flanges project at 17 beyond the connecting portion, thus providing two prongs which

will penetrate the surface on which the legged article rests.

From the foregoing it will be seen that there has been provided a legged article which has its legs pivotally connected to the head or support and readily detachable from said support. These legs are both foldable and extensible. The folding is secured by a joint which readily permits the legs to be locked in their unfolded condition. The legs are formed of channeled stock and each section is adapted to be housed within its adjacent section so that when folded a compact structure is provided.

What I claim as my invention and desire to secure by Letters Patent is:—

1. The combination with a head and a pivot pin carried thereby, of a leg having a curved end and provided with an L shaped slot having one arm leading from one face of the leg and the other arm extending toward the curved end, the inner end of said lateral arm being arranged substantially at the center of the curved end and the curved end engaging the head so as to provide a detachable locking connection with the head.

2. The combination with a support and a pivot pin carried thereby, of a leg having an upper portion formed of channeled stock with the channel side disposed inwardly, the upper end of the bottom wall of the channel being extended beyond the sides of the channel, the sides of the channel having their extreme ends curved and conforming with the curved extension on the bottom wall of the channel, the sides of the channel also having L-shaped slots, the inner ends of which are arranged substantially at the center of the curved extension, and the bottom wall of the channel being slotted to connect with the slots in the sides.

3. A leg comprising two channeled members, one of which slides in the other, the latter having inwardly turned portions on opposite sides of the channel engaging the sides of the channeled member lying therein, the inner channeled member having a longitudinally extending slot, a headed pivot pin secured to said outer member and extending through the slot in the inner member, a lever secured to the pivot pin, and means for producing a cam action between said lever and the outer member to cause the headed pivot pin to enter into binding engagement with the inner member on opposite sides of the slot.

BRAYTON W. STARKWEATHER.