

(No Model.)

F. S. BOUTON.

TRIPOD STAND FOR PHOTOGRAPHIC CAMERAS, &c.

No. 581,806.

Patented May 4, 1897.

Fig. 1.

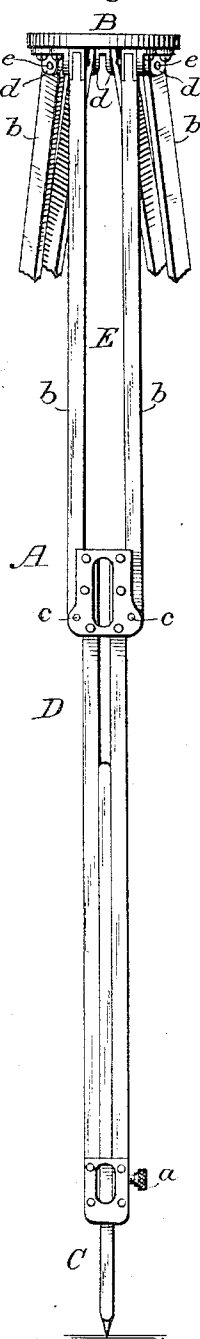


Fig. 2.

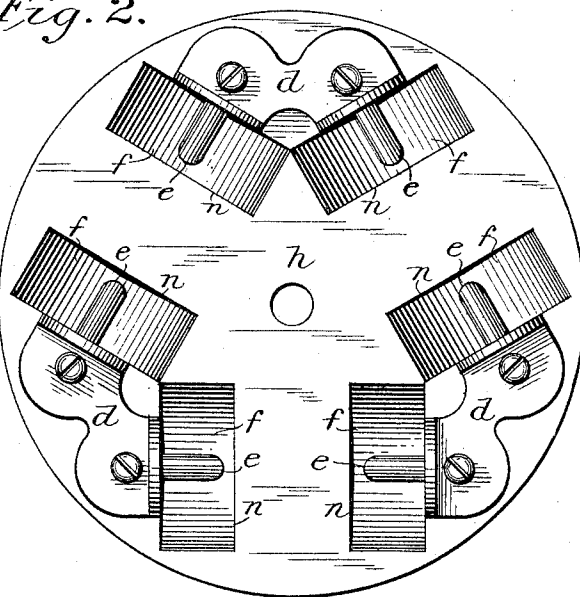


Fig. 3.

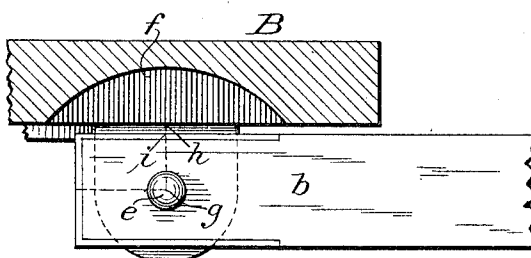
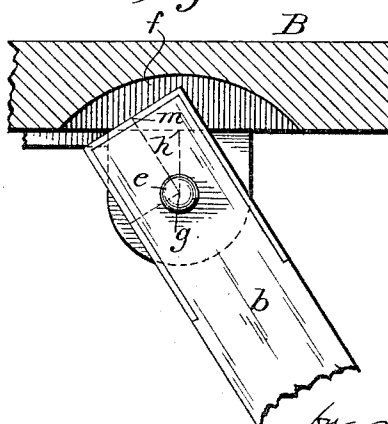


Fig. 4.



Witnesses
Jos. S. Latimer
Theo. T. Snell.

Inventor
Frank S. Bouton
by *Arthur D. Brown*
his Attorney

UNITED STATES PATENT OFFICE.

FRANK S. BOUTON, OF ROCHESTER, NEW YORK, ASSIGNOR TO WILLIAM F. CARLTON, OF SAME PLACE.

TRIPOD-STAND FOR PHOTOGRAPHIC CAMERAS, &c.

SPECIFICATION forming part of Letters Patent No. 581,806, dated May 4, 1897.

Application filed December 14, 1896. Serial No. 615,655. (No model.)

To all whom it may concern:

Be it known that I, FRANK S. BOUTON, of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Tripod-Stands for Photographic Cameras and the Like, of which the following is a specification.

This invention relates to portable tripod-stands intended more particularly for supporting photographic cameras, such stands being separable and collapsible, so as to be capacitated for being disposed in small compass for convenience in carrying; and the invention consists in improved means for preventing the accidental disengagement of the tripod-legs from the tripod-head during use.

The improvements are illustrated in the accompanying drawings, wherein—

Figure 1 is an elevation of the improved tripod-stand; Fig. 2, a bottom view of the tripod-head, and Figs. 3 and 4 detail views showing the manner of connecting and disconnecting the tripod-legs from the tripod-head.

A A are the legs of the stand, supporting the head B. Each leg A is separable from the tripod-head and is constructed in sections, so as to be capable of being brought into small compass. Any suitable known construction of legs may be employed which enables them to be collapsed, a typical construction being illustrated in the drawings.

As shown in the drawings, each tripod-leg (of which one only is shown completely) is composed of three sections C, D, and E. The bottom section C slides telescopically within the intermediate section D and is held in any desired place by means of the set-screw *a*. The upper section E is composed of two limbs *b b*, each of which is pivoted at *c* at its lower end to the head of the intermediate section D. Consequently when the tripod is not in use the limbs *b b* of the upper section can be folded down upon the intermediate section D and the bottom section C can be nested within the intermediate section D, whereby the leg is collapsed into a compact form. Near the upper end of each limb *b* of the section E of the leg is an aperture which serves as a journal for connecting with the tripod-head B.

The tripod-head B has on its under side near its periphery three equally-spaced me-

tallic brackets *d*, each of which carries two pintles *e*, which extend horizontally and are located a short distance below the bottom face of the tripod-head B. These pintles *e* enter the journal-apertures of the upper limbs *b* of the tripod-legs. In this manner the tripod-legs are secured to the tripod-head, and since the tripod-legs are journaled on the pintles the tripod can be adjusted to bring the camera at any desired height irrespective of the character of the ground.

The tripod as thus far described possesses no novelty, but is similar to well-known tripods.

It is obvious that with a tripod as thus far described there is danger of the tripod-legs becoming accidentally detached from the tripod-head during use by reason of the upper limbs *b b* of the legs slipping off from the pintles *e e*. The present invention consists in particular means for preventing this accidental detachment of the legs from the head. With this end in view the tripod-head is provided on its under side with six open recesses *f f* immediately above and in line with the respective pintles *e e*. Each of these recesses *f* is of a width somewhat greater than the thickness of one of the limbs *b* and is of a length sufficient to allow of the free swinging of the corresponding limb *b* on the corresponding pintle *e*. The relations between these recesses *f*, the pintles *e*, and the upper ends of the limbs *b* are as follows, reference being had to Figs. 3 and 4 of the drawings:

The perpendicular distance from the center *g* of one of the pintles *e* to the under face *h* of the tripod-head B (that is, the distance *g* to *h*) is greater than the distance from the center *g* to the nearest point *i* of the side of the limb *b*, the distance *g* to *i* being one-half of the width of the limb *b*. Consequently when the limbs *b* are turned so as to occupy a position parallel (or approximately parallel) with the under face *h* of the tripod-head B, as shown in Fig. 3, the limbs can be readily separated from and attached to the pintles. The distance *g* to *m*, however, which represents the distance which the limbs *b* extend above the centers of the pintles *e*, is greater than the distance *g* to *h*, so that when the legs are turned to a position for use, as shown in Fig. 4, the upper ends of

the limbs *b* extend within the recesses *f* on the under side of the tripod-head, and consequently the limbs cannot then be detached, accidentally or otherwise, from their respective pintles, being prevented from doing so by coming into contact with the outer walls *n* of the recesses *f* while still engaged with the pintles *e*. The legs can be detached from the tripod-head only when they are turned to a position approximately parallel with the tripod-head or to such an acute angle therewith which they never occupy when in use. In this manner simple, inexpensive, and efficient means are provided, absolutely preventing disengagement of the legs from the head when the tripod is in use, and, nevertheless, permitting the ready and convenient detachment of the legs from the head at will.

I claim as my invention—

1. The tripod-head having pintles below and extending parallel with the bottom thereof, and recesses in said bottom opposite each of said pintles, in combination with separable tripod-legs adapted to be journaled near their upper ends upon said pintles by slipping endwise along said pintles, the upper ends of said tripod-legs swinging into and being retained in said recesses when the tripod is in position for use, and being free from said recesses when the legs are turned into a position wherein

they are incapable of use and are capable of slipping off from said pintles, substantially as set forth.

2. A tripod-head having recesses on its under side, and pintles extending across said recesses respectively and located a short distance below and extending parallel with the bottom of the tripod-head, in combination with tripod-legs adapted to be journaled on said pintles by slipping endwise along said pintles, the perpendicular distance between the center of a pintle and the side edge of the corresponding leg when journaled thereon being less than the perpendicular distance between said center and the bottom face of the tripod-head, and the distance between said pintle center and the upper end of said leg being greater than said distance between said center and the bottom face of the tripod-head, whereby when the legs are turned into a position of use, their upper ends enter and are retained within said recesses, substantially as set forth.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

FRANK S. BOUTON.

Witnesses:

GEO. J. MACLAUGHLIN,
J. M. WALMSLEY.