

No. 765,175.

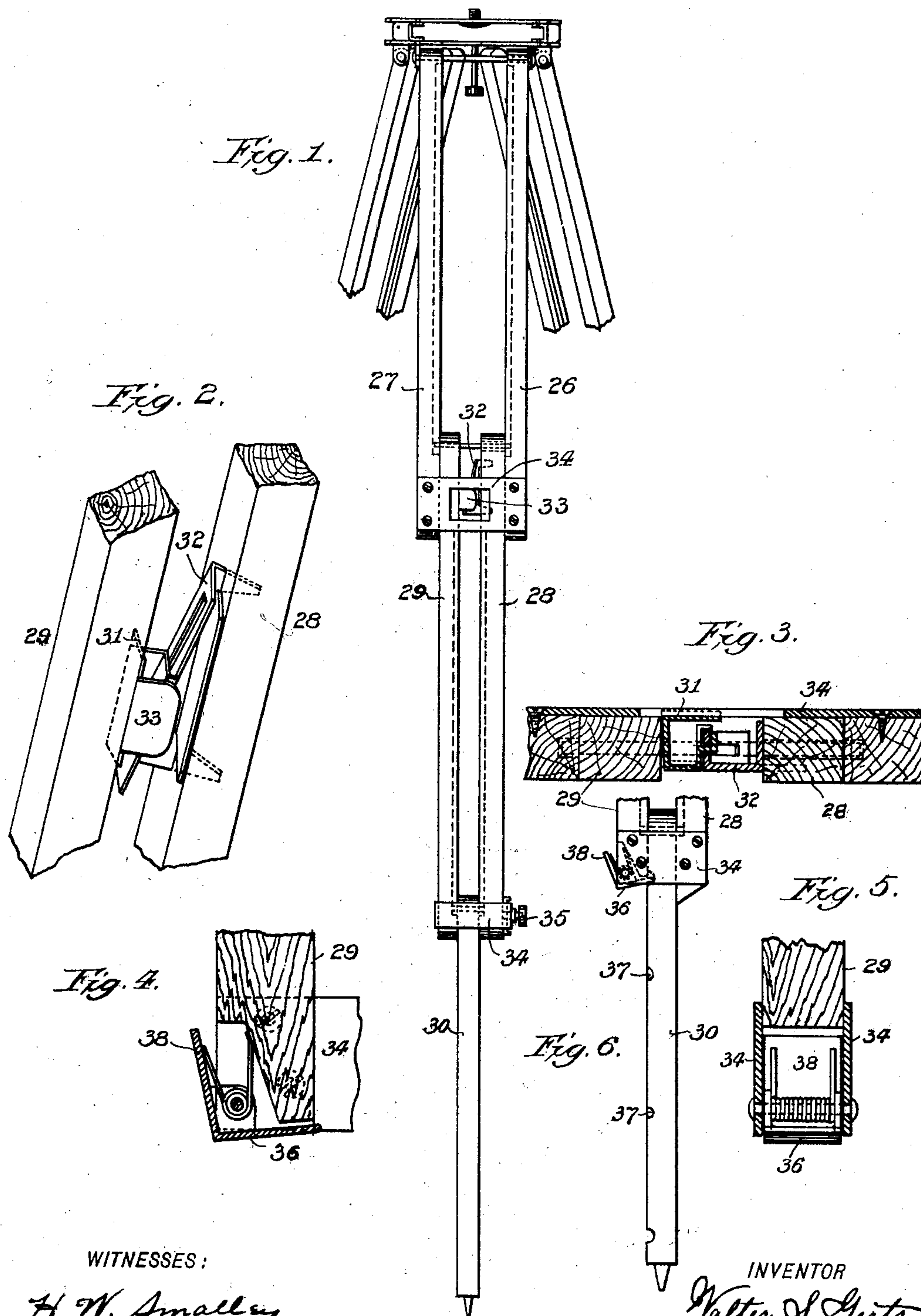
PATENTED JULY 19, 1904.

W. S. GERTS.  
TRIPOD.

APPLICATION FILED JULY 29, 1901.

NO MODEL.

3 SHEETS—SHEET 1.



WITNESSES:

H. W. Smalley

L. O. Green

INVENTOR

Walter S. Gerts

BY

Paul Symonds  
ATTORNEY

No. 765,175.

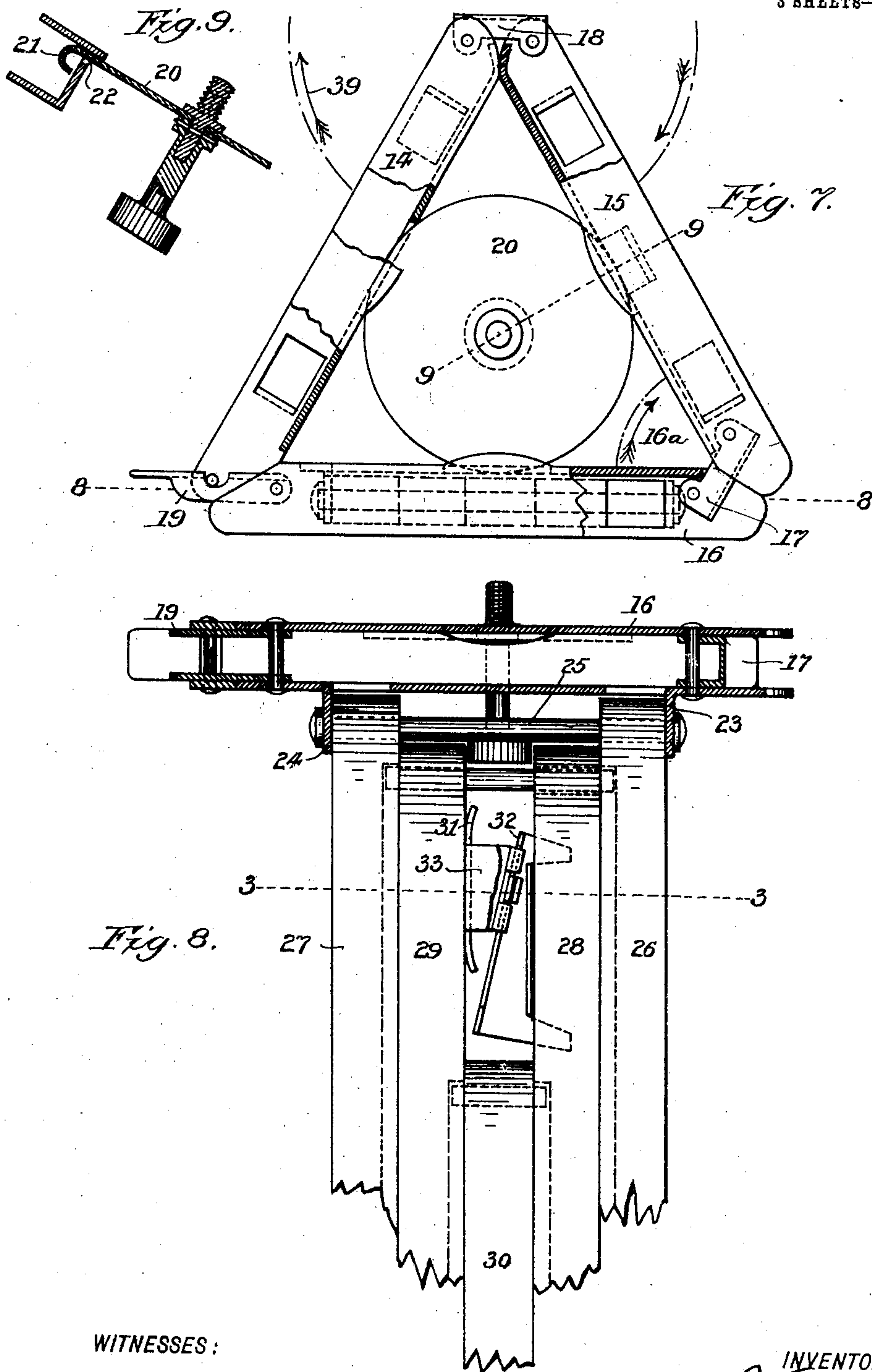
PATENTED JULY 19, 1904.

W. S. GERTS.  
TRIPOD.

APPLICATION FILED JULY 29, 1901.

NO MODEL.

3 SHEETS—SHEET 2.



WITNESSES:

H. W. Smalley

F. O. Green

INVENTOR

Walter S. Gerts  
BY  
Paul Symmes  
ATTORNEY

No. 765,175.

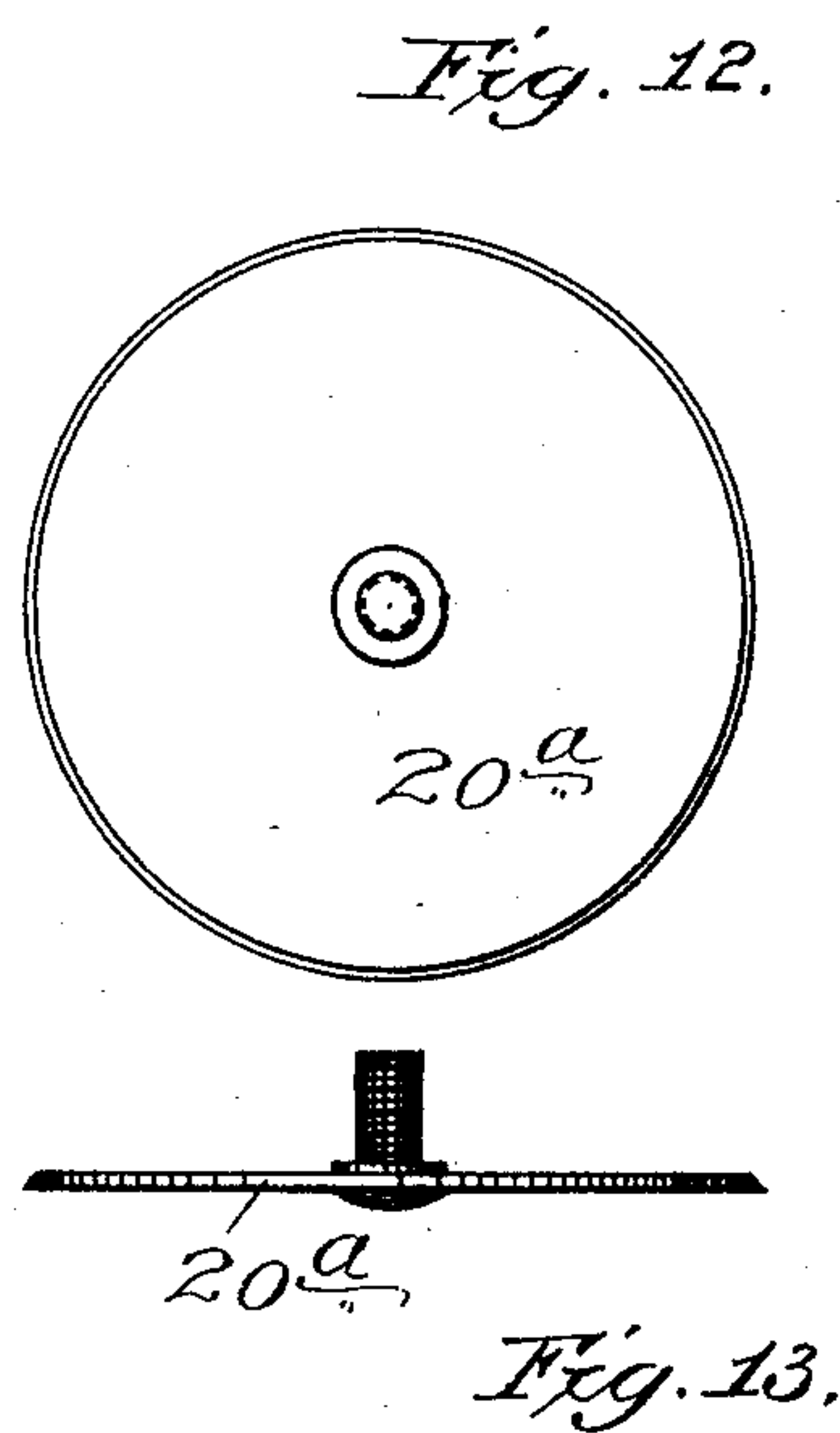
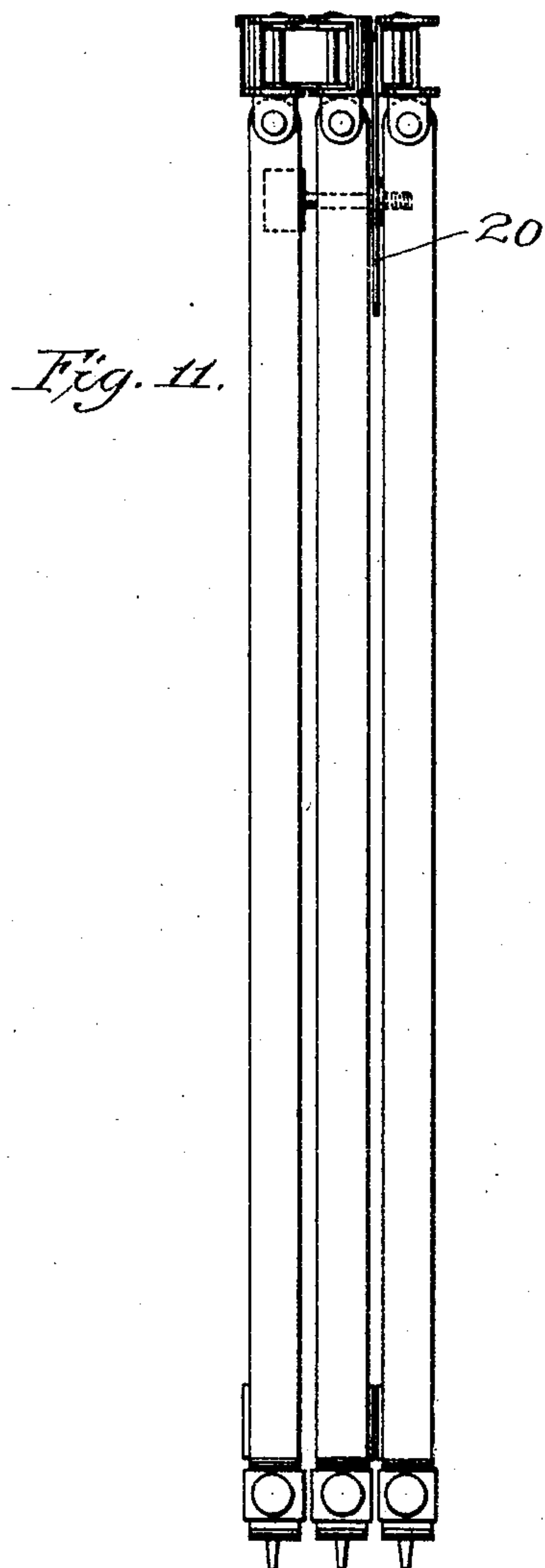
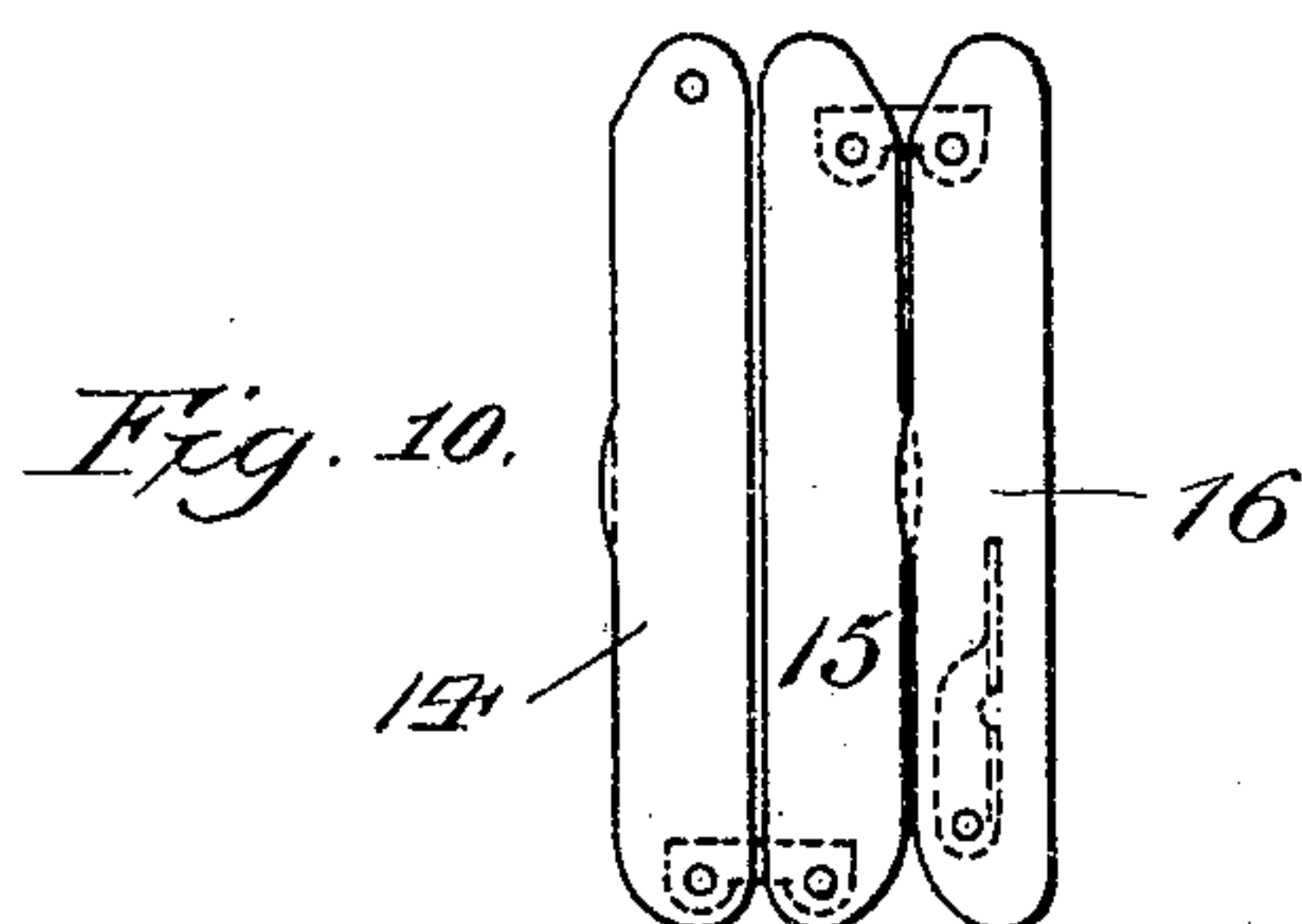
PATENTED JULY 19, 1904.

W. S. GERTS.  
TRIPOD.

APPLICATION FILED JULY 29, 1901.

NO MODEL.

3 SHEETS—SHEET 3.



*Fig. 13.*

WITNESSES:

*H. M. Smalley*  
*J. O. Green*

INVENTOR.

BY *Walter S. Gerts*  
*Paul Symmestadt*  
ATTORNEY.



# UNITED STATES PATENT OFFICE.

WALTER S. GERTS, OF OAKPARK, ILLINOIS.

## TRIPOD.

SPECIFICATION forming part of Letters Patent No. 765,175, dated July 19, 1904.

Application filed July 29, 1901. Serial No. 70,021. (No model.)

*To all whom it may concern:*

Be it known that I, WALTER S. GERTS, a citizen of the United States of America, residing at Oakpark, Cook county, Illinois, have invented certain new and useful Improvements in Tripods, of which the following, taken in connection with the accompanying drawings, is a specification.

This invention has reference to tripods such as are used for mounting instruments, particularly cameras, in position for work. The primary objects of this invention are, the provision of a tripod which will more compactly fold into shape for carrying, and which can be erected in position for use with a maximum facility, and the expenditure of a minimum of time.

The above as well as such other objects as may hereinafter appear, I attain by means of a construction which I have illustrated in preferred form in the accompanying drawings, in which—

Figure 1 is a view of the tripod erected in operative position, a portion only of two of the legs being shown,

Figure 2 is a view of a detail of the mechanism employed for locking one of the leg extensions in position,

Figure 3 is a sectional view taken on the line 3—3 of Figure 8,

Figure 4 is a sectional view showing a detail of the mechanism employed for retaining one of the extensions of the legs in place,

Figure 5 is another sectional view of the structure shown in Figure 4,

Figure 6 is a view of the lower most leg extension, with the locking device of Figure 4 and 5 applied thereto,

Figure 7 is a plan view of the tripod head in operative position,

Figure 8 is a side elevation of the upper part of the tripod, with the head in section, the section being taken on the line 8—8 of Figure 7,

Figure 9 is a partial section of the plate and set screw taken on the line 9—9 of Figure 7,

Figure 10 shows an end view of the head when folded for carrying,

Figure 11 is a side elevation of the tripod when folded for transportation,

Figure 12 is a view of another plate which

can be used in the upper part of the tripod, and

Figure 13 a side elevation thereof.

Referring now more particularly to Figures 7, 8, and 9, it will be seen that for a head, I provide three members 14, 15, and 16, connected together by means of the link connections 17, 18, and the latch 19, in the manner shown, with a plate 20 embraced between them, which when they are folded, is held by a hinge projection 21, entering an opening 22, in the part 15 (see Fig. 9).

The parts 14, 15, and 16 are preferably formed out of stamped sheet metal, bent into shape, and fastened together as shown, and provided with lugs 23 and 24, providing a pivotal support for a pin 25, which secures the upper one of the leg sections to the head.

The legs are formed as ordinarily, of a number of sections, longitudinally movable, relative to each other, whereby the leg may be lengthened or shortened, the sections being provided, however, with novel means for locking them, shown in the several figures, particularly Figure 8 and Figures 4, 5, 6, and 2 and 3. Referring more especially to Figures 1 to 6 inclusive, it will be seen that the upper part of the leg is formed of two parts, 26 and 27, between which is a middle section formed of the parts 28 and 29, which in turn embrace between their lower ends, a third section 30. Between the upper ends of the parts 28 and 29, I provide a wedge lock, comprised of the pieces of stamped or bent sheet metal 31 and 32, one of which 32, is fastened to the part 28, and the other 31, interlocks with the piece 32, and bears against the part 29, the whole being arranged so that when the parts are in the position shown in Figure 1, the bent portion or thumb piece 33 of the part 31, springs outward and engages the opening in the plate 34, locking the part 31 to prevent its moving upward, and insuring the wedging action of the two parts relative to each other whenever any weight or pressure is exerted downward upon the tripod leg. The parts 28 and 29 are thus forcibly pressed against the parts 26 and 27. In order to release this catch, the thumb piece or flap 33 is pressed inward, to disengage it from the plate 34, when the part 31 can be moved slightly upward, releasing the pres-



sure on the parts 26 and 27, and permitting the leg to be shortened.

For fastening the lower leg sections 30, there is usually employed a band 34<sup>a</sup>, with a thumb screw 35 as shown in Figure 1. In lieu of these I have provided a device in the shape of a pivoted catch 36, held as shown in Figure 6, and adapted to engage a plurality of notches 37, on the leg section 30, being arranged to catch in any notch, depending upon the position at which the leg section 30 may be placed, by means of the pressure of the spring 38, or other equivalent means. In order to release this catch to change the amount of extension of the part 30, it is only necessary to push inward against the spring 38, or against some part which will draw the catch 36 out of the notches 37, when the leg section 30 can be set at any desired position.

In order to fold my tripod, the legs are first made as short as possible, by bringing the extensible sections together into the position shown in Figure 8, after which the latch 19 is unfastened, and the part 14 is swung around in a direction shown by the arrow 39, until it comes in contact with the part 15. The plate 9 is then swung downward around the hinge 21, and the part 16 swung around in the direction shown by the arrow 16<sup>a</sup>, in contact with the part 15, bringing the parts 14, 15, and 16 to the position shown in Figure 10, in which the plate will hang as shown in Figure 11, with the thumb screw as shown in dotted lines on said figure, and the legs will occupy the position in Figure 11, there being no projecting parts at any side thereof.

If desired, a loose plate like that marked 20<sup>a</sup>, shown in Figures 12 and 13, can be used, in place of the hinged plate 20 shown in the other figures; in which case it would be simply clamped and held between the members 14, 15, and 16, substantially the same as is the hinged plate when in operative position.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is--

1. A tripod head comprising a central plate, a circumferential set of link members pivoted together in series and embracing the plate to rigidly support the same, substantially as described.

2. A locking device for a tripod leg, comprising a wedge secured to one member of the leg, means secured to an adjacent member, constructed to slide upon said wedge, to push or press the two relatively movable leg members together, and means whereby to hold the same in fixed position, substantially as described.

3. A tripod comprising a set of extensible legs and a head supported thereon consisting of a horizontally circumferential set of links hinged together to open outwardly, and a catch for locking said links together to form a rigid frame, each link forming a side of said frame.

4. A tripod comprising three legs and a head supported thereon comprising a central plate, three bars linked together and embracing said plate, and means for locking all parts rigidly in place, substantially as described.

5. A collapsible tripod head comprising a circumferential set of jointed members, a central plate hinged at its edge to one of said members and adapted to be embraced and supported by all of said members when in operative position.

6. In a tripod, an instrument base, a series of legs, and a like number of leg holders one for each leg, said leg holders being hinged together and one of said leg holders being hinged to said instrument base by a hinge parallel to said base, and locking mechanism for locking the leg holders and instrument base together.

7. In a folding tripod, three holders for the legs pivoted together so as to be folded from a triangular position to a parallel position and vice versa, a top plate hinged to the holder of one pair of legs by a hinge connection, and a locking device by which the three holders can be locked in their triangular position to the under side of the top plate.

8. In a tripod, an instrument base, and a series of leg holders, connected to said base and adapted to move substantially in the same plane and to fold into a parallel position and into an angular position with reference to each other.

9. In a tripod, an instrument base and a series of leg holders connected to said base, and adapted to move substantially in the same plane and to fold into a parallel position and into an angular position with reference to each other, and locking mechanism for locking the leg holders and the instrument base together.

10. In a tripod, a series of leg holders, one for each leg, and pivoted to each other and susceptible of being folded into a parallel position and into an angular position with reference to each other, an instrument base pivoted to one of the leg holders, and locking mechanism for locking the leg holders and base together.

WALTER S. GERTS.

In presence of--

PAUL CARPENTER,  
H. W. SMALLEY.