

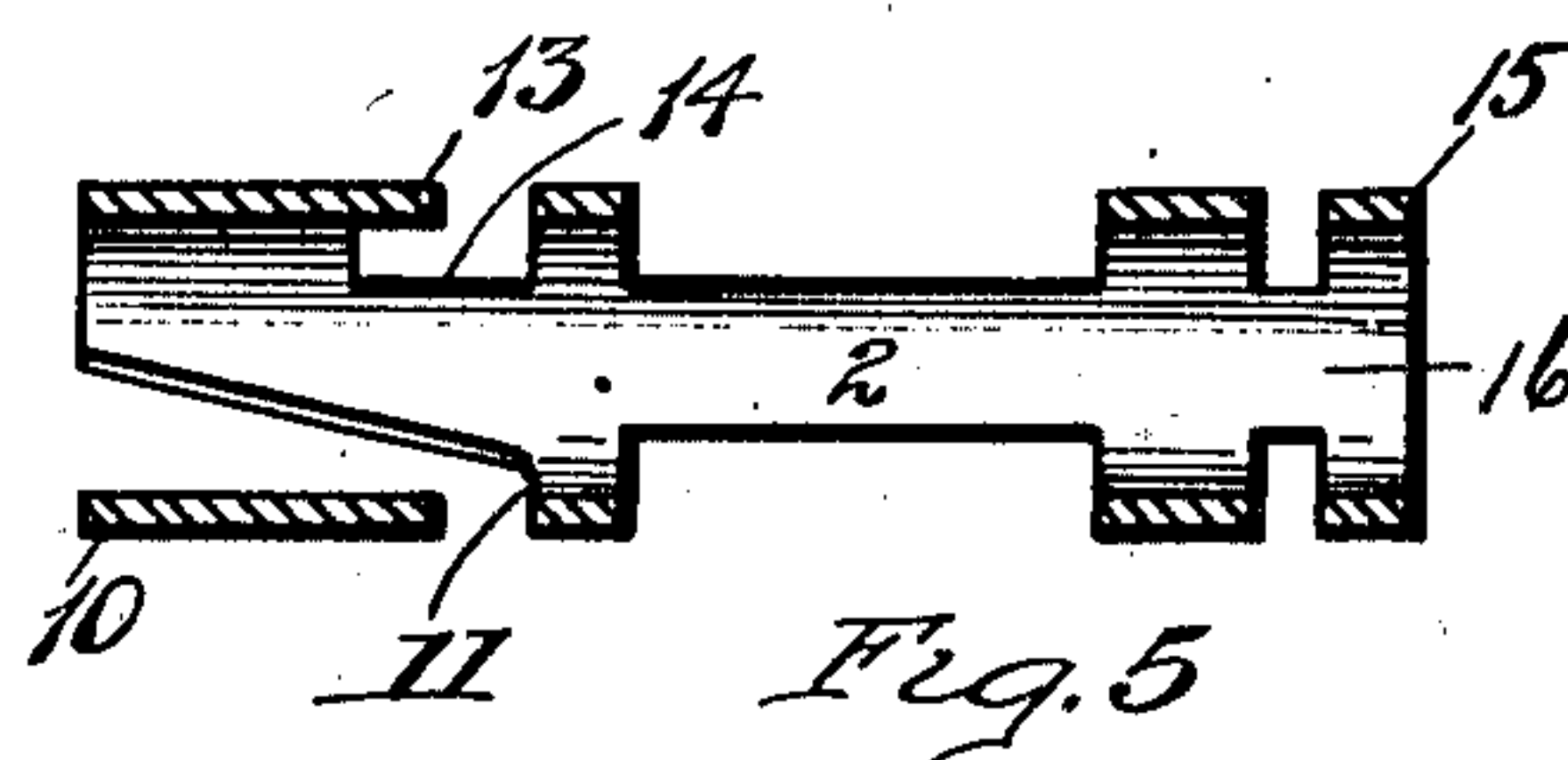
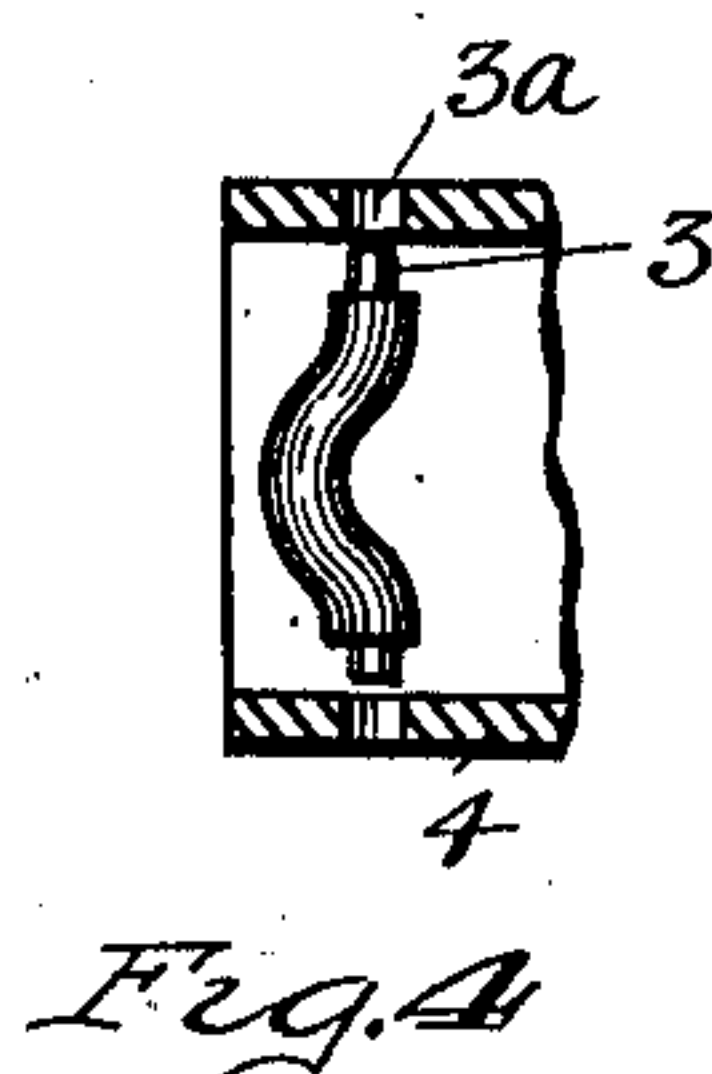
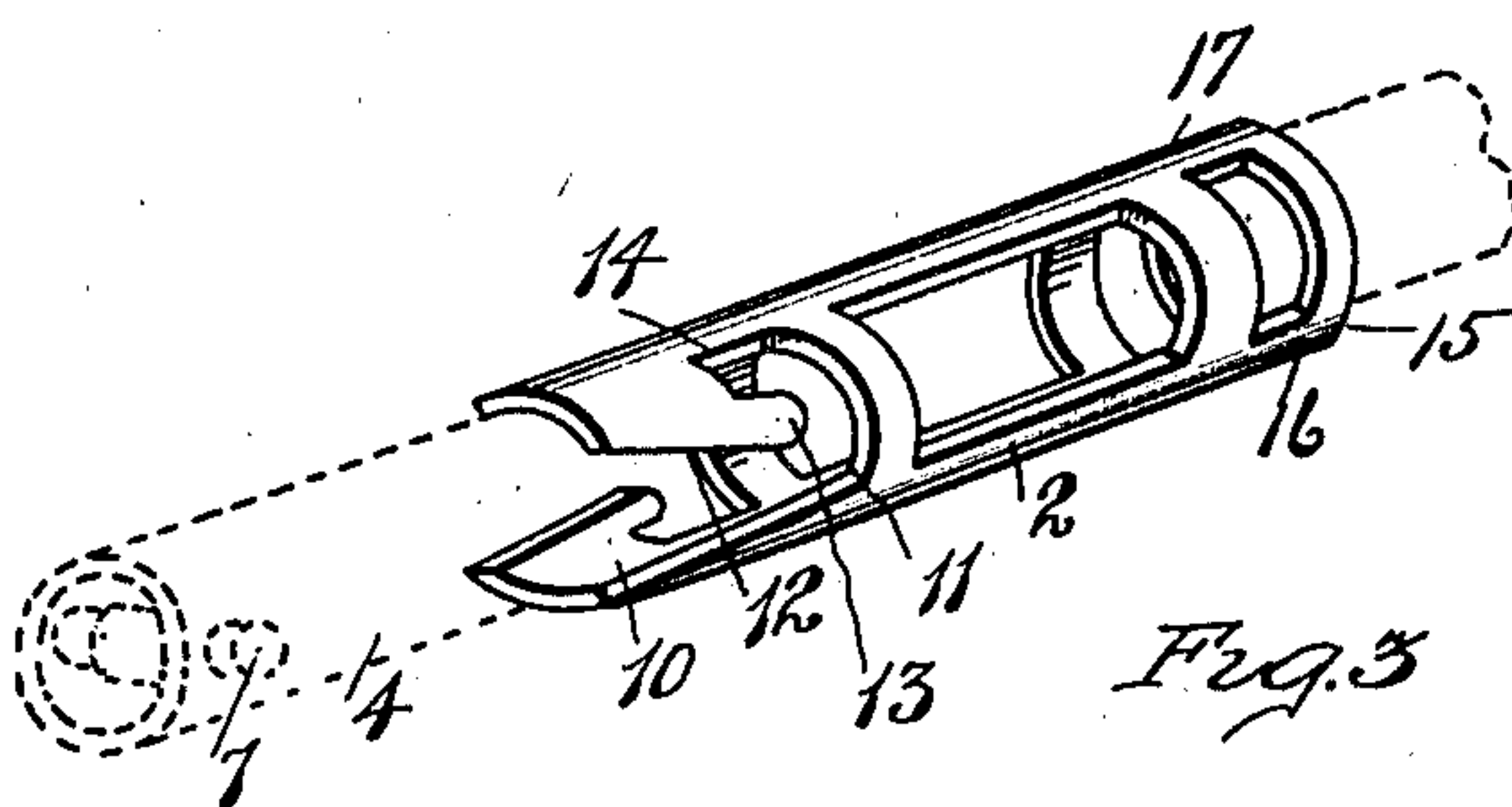
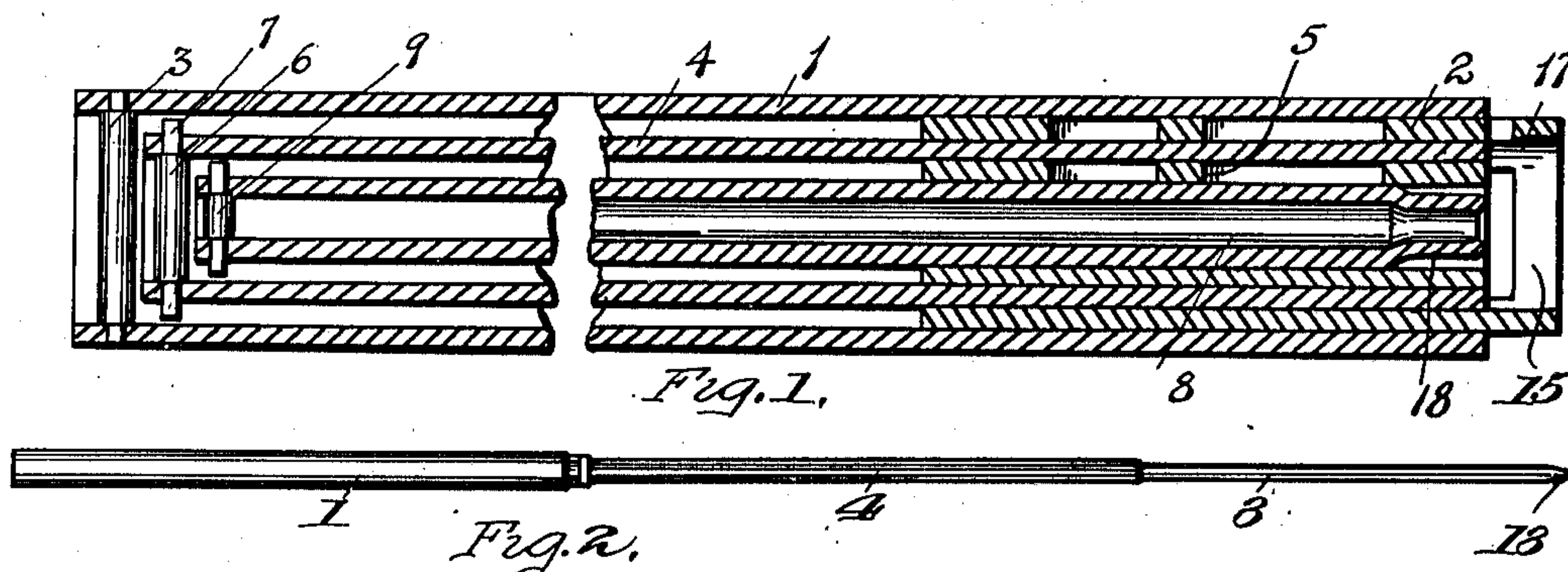
E. H. STONE & E. H. GRIFFITH.

TELESCOPING POLE.

APPLICATION FILED APR. 30, 1910.

993,121.

Patented May 23, 1911.



WITNESSES.

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ELMER H. STONE AND ELI H. GRIFFITH, OF DETROIT, MICHIGAN.

TELESCOPING POLE.

993,121.

Specification of Letters Patent.

Patented May 23, 1911.

Application filed April 30, 1910. Serial No. 558,746.

To all whom it may concern:

Be it known that we, ELMER H. STONE and ELI H. GRIFFITH, both citizens of the United States, residing at Detroit, county of Wayne, State of Michigan, have invented a certain new and useful Improvement in Telescoping Poles, and declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to telescoping poles. It has for its object an improved pole that is especially adapted for use as a tent pole, more particularly for use in supporting what is known as a shelter tent.

The structure in which the invention is embodied comprises a plurality of tubular parts, of which the smaller telescope into the larger.

As shown in the drawings there are three such parts, but any number of parts may be used, and the invention resides in the coupling which holds the parts slidingly together, and in other features of novelty which are used in such a telescoping pole.

In the drawings:—Figure 1, is a side elevation, largely in section, showing the parts collapsed or telescoped together. Fig. 2, is an elevation, on a much smaller scale than in Fig. 1, showing the pole extended. Fig. 3, is a perspective showing the coupling. Fig. 4, is a detail sectional elevation of one end of an individual pole, indicating the manner of inserting the cross bar at the base of each part. Fig. 5, is a section showing the top end of the coupling piece which is inserted in the end of the outer tube and bringing out the ring by which the pole is carried.

With the three-part pole shown in the drawing, the outer part 1 is tubular and is provided at one end with a coupling 2 which is inserted therein and secured thereto; it is provided at the opposite end with a cross bar 3 which is secured across the opening of the tube and prevents the included tubes from dropping out at this end of the structure. The second or intermediate part 4 is almost identical with the outer part 1, except that it is smaller in diameter and engages closely within the interior of the coupling 2. It is provided at the top end with a coupling 5 quite similar to the coupling 2 except for a

difference which will be hereinafter explained, and at the opposite end with a cross bar 6 which extends across the opening of the tube and projects outward beyond the walls of the tube to form pins 7 that engage in the coupling 2. The inner member 8 is tubular, is coned or contracted rather sharply at its upper end 18 to provide a point over which the gromet of the tent will engage, and which will not permit the gromet to slip down along the body of the tube. At its opposite end it is provided with a cross bar 9 that extends across the tube through the walls thereof and projects beyond to engage in the coupling 5.

The couplings 2 and 5 are alike except that the coupling 2 is not inserted so deeply into the tube 1 (that is, so far from the open, right-hand end as shown in Fig. 1,) as is the coupling 5 inserted in the tube 4. Each of these couplings consists of a tubular structure (of which parts may be cut away to render it lighter) provided at the inner end with deep diametrically opposed notches that extend along and into the tubular walls substantially parallel with the axis, and narrows from the extreme end toward the middle of the coupling. At the base or inner end 11 of the notch the opening is carried around the body of the tube beyond the generally lengthwise extending guide line 12 of the opening and behind the inwardly pointing nose 13 lengthens along the axis of the coupling, so that the pin 7 of the tube 4 entering the notch 10 is guided and directed to the gradually tapering end of the notch adjacent the base and the tube 4 may then be turned on its axis until the pin 7 has passed the guide point 13, and then the tube 4 is moved in the opposite direction along its axis from that followed by it when entering the notch 10 until the pin 7 engages on the end 14 of the notch. Each one of these cut-away portions of the tube, when viewed with the tube in vertical position presents, in its outline, the general appearance of the letter J. The guide notches are arranged on each side of the axis of the tube diametrically opposite the one to the other, and the pin 7 projects to both sides of the tube 4; the several tubes, as thus organized and correlated, interlock, when brought to their open or extended position, on the principle of a bayonet coupling, in the peculiar manner described. When the structure is in use it stands vertically with the end 14 of the

notch to the bottom, the end 11 of the notch to the top and the coupling thus assembled is entirely stable, and the parts can only be uncoupled in order to telescope the inner parts within the outer ones by first pulling the inner tube farther up or out from the tube within which it is located and then turning it upon its axis and allowing it to drop. The outer coupling 2 projects slightly from the outer tube 1 and is provided with a partially detached ring 15 supported on short posts 16 and 17, which hold the ring part 15 entirely outside of or beyond the walls of the tube 1, and furnish a means by which the entire structure can be carried by a strap or cord passed through the opening under the ring 15, which will not only sustain the collapsed pole in its vertical position, but will also prevent the inner parts from slipping from their compact places at times during carriage. The bars at the bottom of the several faces serve to prevent the parts from being extended or from projecting at the bottom end, and the projecting terminals of these parts on all the inner tubes serve as pins to form part of the bayonet coupling structure. These bars are located by constructing the bar of the proper length and bending it quite sharply at the middle, as is indicated at Fig. 4. This bar properly bent is placed in position with the necks properly located to engage the holes 3^a in the middle tube and the bars are then straightened, thus forcing the necks into place in the holes.

What we claim is:—

1. In a telescoping pole, the combination of a plurality of telescoping tubes, each having at one end diametrically opposed bayonet catch slots, and locking bars arranged transversely of the opposite end of each tube and provided with extended ends adapted to engage in the slots in the next adjacent tube and lock the same in extended position when the tubes are drawn out from the telescoped position, and to hold the tubes from escaping at one end when the tubes are telescoped, substantially as described.

2. In a telescoping pole, in combination with a plurality of telescoping tube members, cross-bars extending across one end of each, those mounted on the inner tube members having projecting slot-engaging end

portions, and sleeve members engaging within the opposite ends of the tube members from those carrying the cross-bars, said sleeve members being of such inside diameter as to receive the tube of next smaller diameter and to permit its slidable movement therein, and each being provided with oppositely disposed bayonet catch slots in which the ends of the cross-bar member in the next smaller tube may interlockingly engage when the several tube members are drawn out into extended position, substantially as described.

3. In a telescoping pole, the combination of a plurality of telescoping tubes, those tubes wherein others of smaller diameter engage having bayonet-slotted sleeves inside at one end, cross bars at the other end of said tubes, the cross-bars of the contained tubes having extended slot-engaging ends, and the outer tube having its slotted sleeve extended beyond its end and that of the several contained tubes, and provided with a slot in such extension, through which means for holding the parts from escaping and for carrying the pole may be passed, substantially as described.

4. A telescoping pole, having in combination, a plurality of telescoping tubes, the outer tube having on the inside at one end a sleeve provided with a pair of bayonet slots and a ring supported by two integral posts, and at the other end a cross bar, the innermost tube having a cross bar with ends extended beyond the outer periphery, and each of the other tubes having on the inside at one end a sleeve provided with a pair of bayonet slots, and at the other end a cross-bar with ends extended beyond the outer periphery, the said extended cross-bar ends being adapted to engage the said slots and lock the tubes together when extended and to prevent the escape of the tubes at one end when telescoped, substantially as described.

In testimony whereof, we sign this specification in the presence of two witnesses.

ELMER H. STONE.
ELI H. GRIFFITH.

Witnesses:

WILLIAM M. SWAN,
CHARLES F. BURTON.