No. 776,426. PATENTED NOV. 29, 1904.

F. ROBINSON.

GAGE POLE OR ROD.

APPLICATION FILED JULY 13, 1904.

NO MODEL.

Fig. 1.

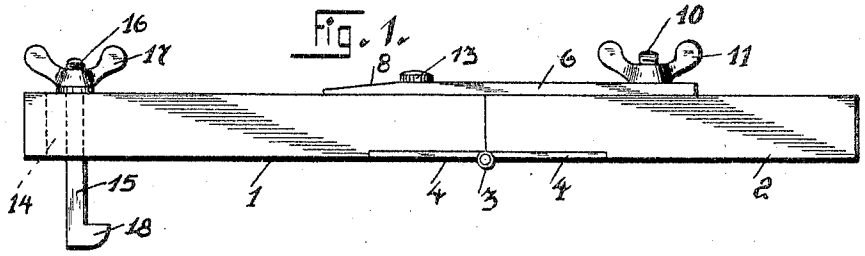



Fig. 2.

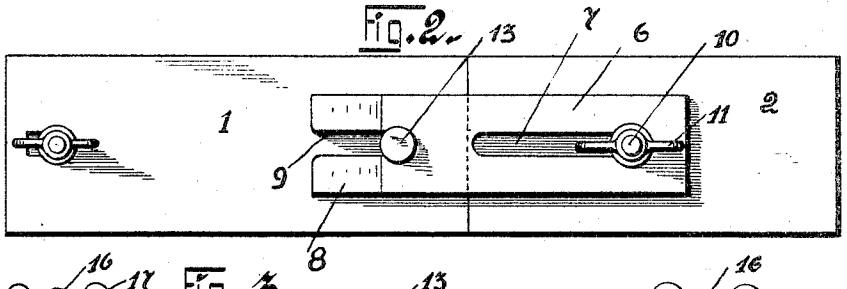



Fig. 3.

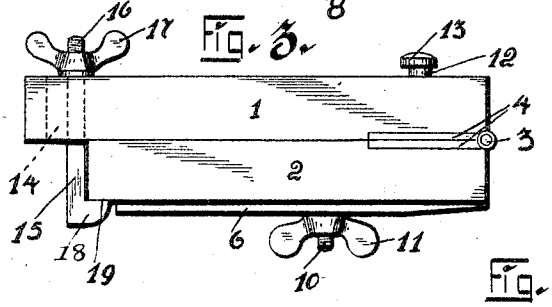



Fig. 4.

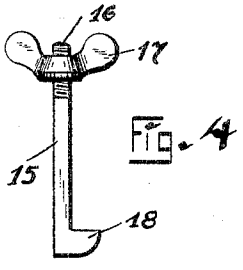
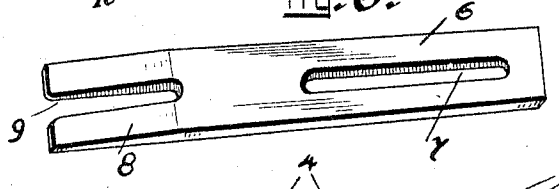



Fig. 5.



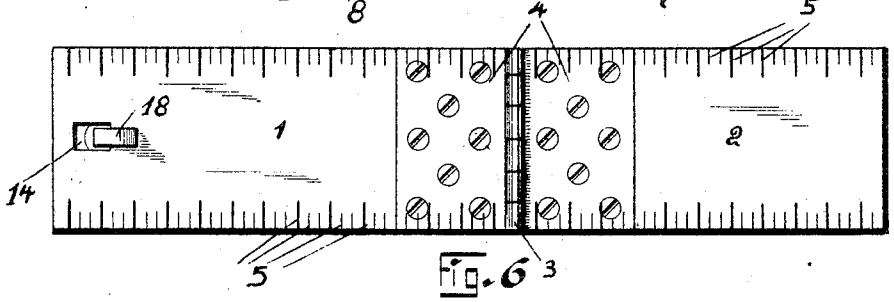




Fig. 6.

Witnesses.
C. Klosterman.
H. W. Dutton.

Inventor.
Forster Robinson.
By A. C. Ewert & Co.
Attorneys.

No. 776,426. Patented November 29, 1904.

# UNITED STATES PATENT OFFICE.

FORSTER ROBINSON, OF SISTERSVILLE, WEST VIRGINIA.

## GAGE POLE OR ROD.

SPECIFICATION forming part of Letters Patent No. 776,426, dated November 29, 1904.

Application filed July 13, 1904. Serial No. 216,412. (No model.)

*To all whom it may concern:*

Be it known that I, FORSTER ROBINSON, a citizen of the United States of America, residing at Sistersville, in the county of Tyler and State of West Virginia, have invented certain new and useful Improvements in Gage Poles or Rods, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention has relation to gage poles and rods, and has for its object to provide a collapsible pole that may be folded into a compact form, thereby making it easier to carry by the person using the same.

Another object of my invention is the provision of novel means whereby poles and rods of this character may be folded so as to form a diminutive package that may be conveniently carried, and in connection with poles of this character I employ novel means for retaining the poles in their extended position when being used.

Briefly described, my invention resides in forming gage poles or rods of a plurality of sections and hinging said sections together, whereby they may be folded upon one another, means being provided to secure the loose ends of said pole together, also means whereby when the pole is extended it will be rigidly and firmly held. Upon the opposite face of the pole to which it is hinged and adjacent to the ends of the hinged sections I provide a slotted plate which is adjusted upon one section of the pole by a thumb-nut, and this slotted plate is adapted to engage a headed pin or bolt carried by the other section and firmly hold the two sections rigid. Upon the end of one of these sections I provide a headed bolt which is adjusted in said section by a thumb-nut, and the head of said bolt is adapted to engage the end of the other hinged section and hold said section firmly in engagement against the section to which it is hinged.

The above construction will hereinafter be more fully described, and specifically pointed out in the claims, and referring to the drawings accompanying this application like numerals of reference indicate corresponding parts throughout the several views, in which—

Figure 1 is a side elevation of a gage pole or rod which is composed of two sections, this view illustrating the pole in its extended position. Fig. 2 is a top plan view of the pole as illustrated in Fig. 1. Fig. 3 is a side elevation view of the pole in its collapsed or folded position. Fig. 4 is a detail side elevation view of the locking-bolt employed to secure the loose ends of the pole together. Fig. 5 is a detail perspective view of the slotted plate employed to hold the hinged sections of the pole in an extended position, and Fig. 6 is an underneath plan view of the pole or rod as constructed in accordance with my invention.

To put my invention into practice, I employ a gage pole or rod which is preferably formed of two sections 1 and 2; yet I wish it to be understood that the gage pole or rod may be made of a plurality of sections and secured together and locked in their different positions, as will be hereinafter described. The two sections 1 and 2 are preferably hinged together, as designated by the reference-numeral 3, and upon the base of the sections upon which the hinges 4 4 are secured I provide the graduations 5 upon the edges of the gage pole or rod.

Upon the opposite side of the gage-pole to which the hinges are secured I mount a slotted plate 6, this plate being provided with a slot 7 in its body portion, and the one end of said plate is beveled, as indicated at 8, this beveled end being provided with a slot 9, forming substantially a crowfoot upon the end of the plate. The one hinged section of the gage-pole is provided with a screw-threaded pin or bolt 10, which is located adjacent to the hinged end of the section 2 and centrally of said section, and when the plate 6 is placed upon the section 2 the pin 10 is adapted to protrude through the slot 7 and have secured on its screw-threaded end a winged thumb-nut 11, this nut being employed to engage the upper face of the plate and lock the same in any position to which it may be adjusted upon said section. Upon the other section 1 I provide a pin or bolt 12, which carries a head 13, this pin being located centrally upon the member 1 and in longitudinal alinement with the pin or bolt 10. When the gage pole or rod is in an extended position, as illustrated in Figs.

1 and 2 of the drawings, the beveled and slotted end of the plate 6 is adapted to engage the pin 12, the end of the plate being beveled to facilitate the movement of the plate into engagement with the pin, the pin 12 being adapted to pass into the slot 9 until the head 13 of the pin or bolt 12 becomes impinged upon the top surface of the plate.

To fold the gage pole or rod in its collapsible position, the winged thumb-nut 11 is loosened, whereby the plate 6 may be moved rearwardly until the beveled end 8 of said plate has become disengaged from the pin or bolt 12 and passed on to the section 2 of the pole, at which time the winged thumb-nut 11 is rotated to again engage the plate and retain the same in this position, which is shown in Fig. 3 of the drawings. In order that the section 2 of the gage-pole may be held and locked in its collapsible position, I preferably form the section 2 of a shorter length than the section 1—that is, in making the pole I unequally divide the same, forming one section of the pole of a greater length than the other—and upon the longer of the two sections I provide locking means for retaining the shorter section in its collapsed position. Formed in the outer end of the section 1 and centrally thereof I provide an orifice 14, in which is mounted the locking-bolt 15, this bolt having formed on its one end screw-threads 16, upon which is placed the winged thumb-nut 17. The other end of the bolt is provided with an angular head 18, and when the section 2 is folded upon the section 1 the angular head 18 is adapted to engage the loose end of the section 2, as designated at 19, the winged thumb-nut being rotated until it has drawn the angular head into engagement with the end of the section 2 and secured the same firmly against the section 1. I have provided the orifice 14 of a greater diameter than the bolt 15, whereby the same may be moved rearwardly when the winged thumb-nut is loosened to permit the section 2 to be returned to its normal or extended position.

The bolt 15 is only employed when the gage pole or rod is to be carried for some distance before it is used, and when the pole is in an extended position and ready to be used for measuring purposes this bolt is withdrawn and may be carried in the pocket of the person manipulating the pole.

It will be readily observed from the drawings, taken in connection with the description thereof, that the mechanism employed for retaining the hinged sections of the pole in an extended position and the means for locking the two ends of the pole when folded may be employed in connection with any article that consists of one or more hinged sections, and for this reason I do not care to limit myself to a gage pole or rod, but may readily employ the same upon articles which are collapsible.

What I claim is—

1. In a pole, the combination of two sections, a hinge connecting the sections together, a plate having a longitudinally-disposed closed slot and a similarly-disposed open-ended slot, said plate overlapping the joint between the sections, a screw carried by one section and projecting through said closed slot, a nut carried by said screw, and a headed pin carried by the other of said sections and projecting through said open-ended slot.

2. In a pole, the combination with two sections adapted to fold one upon the other, of a slotted plate having a beveled end and adjustably mounted upon one of said sections, a headed pin carried by the other of said sections, and adapted to pass through a slot in the beveled end of said plate.

3. In a gage-pole, the combination with two hinged sections, a slotted end-beveled plate adjustably mounted upon one of said sections, a pin carried by the other of said sections and adapted to engage said plate, an angular bolt mounted in the end of one of said sections and adapted to engage the end of the other section when in a folded position, substantially as described.

4. A gage-pole composed of two hinged sections of unequal length hinged together, in combination with a headed bolt passing through a slot in the end of the longer section, the head of the bolt being adapted to extend over the outer surface of the shorter section, and a nut carried by said bolt and adapted to draw the head of the bolt into contact with the said shorter section.

In testimony whereof I affix my signature in the presence of two witnesses.

FORSTER ROBINSON.

Witnesses:
A. R. FORSTER,
NELL G. BLACK.