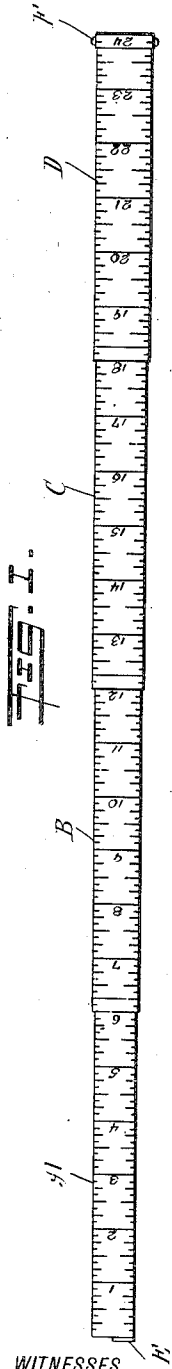


F. C. GREATHEAD.
TELESCOPING POCKET RULE.
APPLICATION FILED DEC. 21, 1911.

Patented Jan. 14, 1913.

2 SHEETS-SHEET 1.

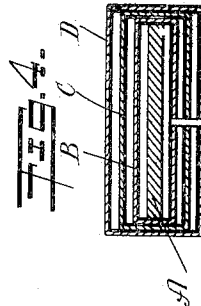
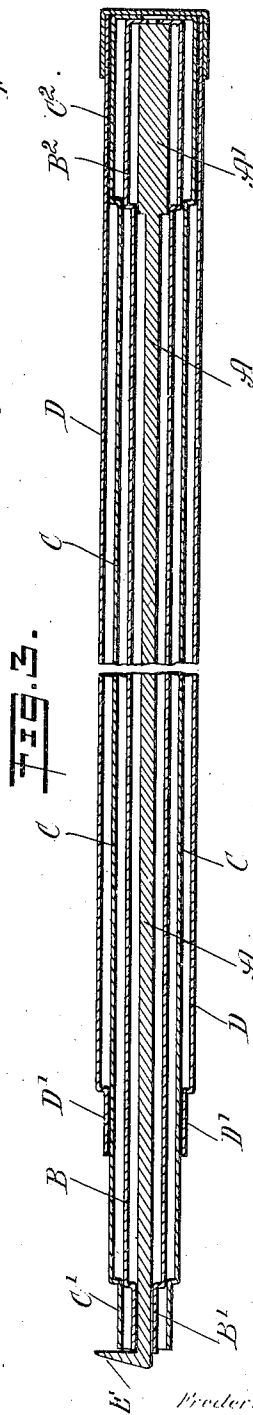
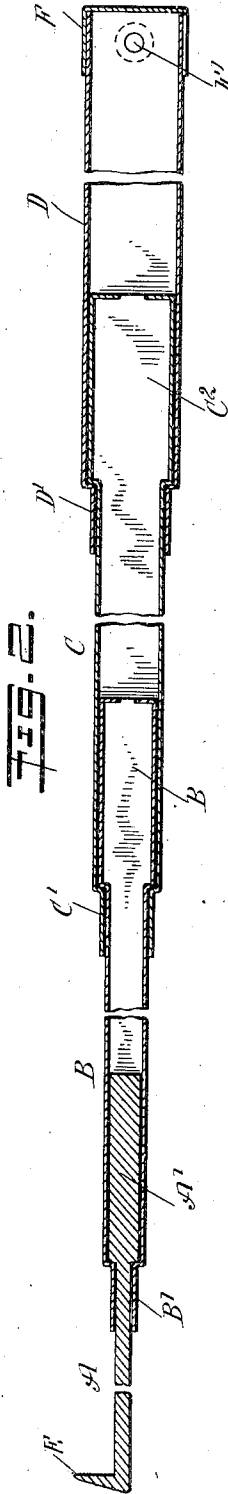
1,050,733.



WITNESSES

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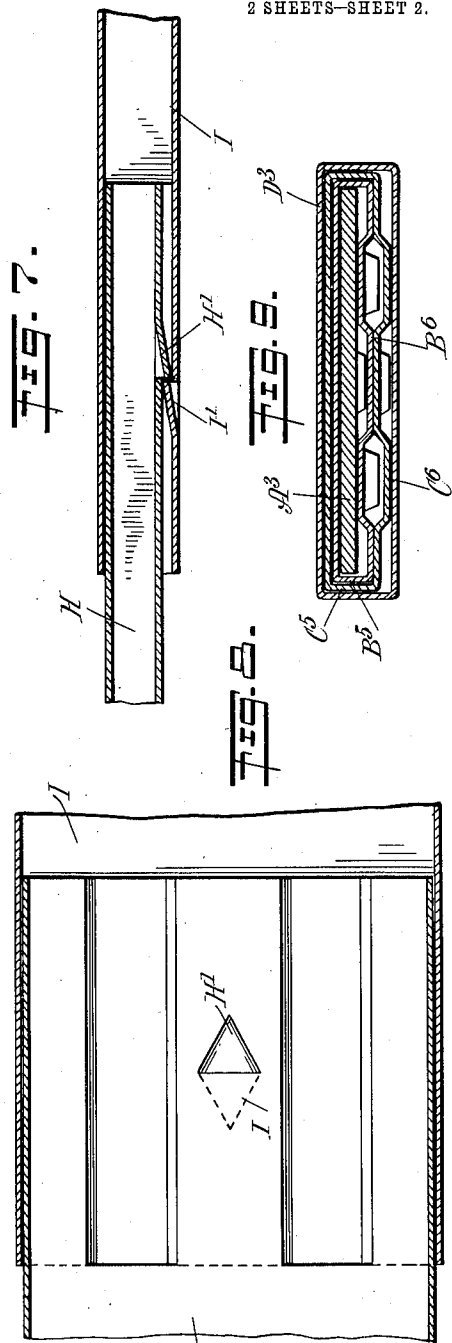
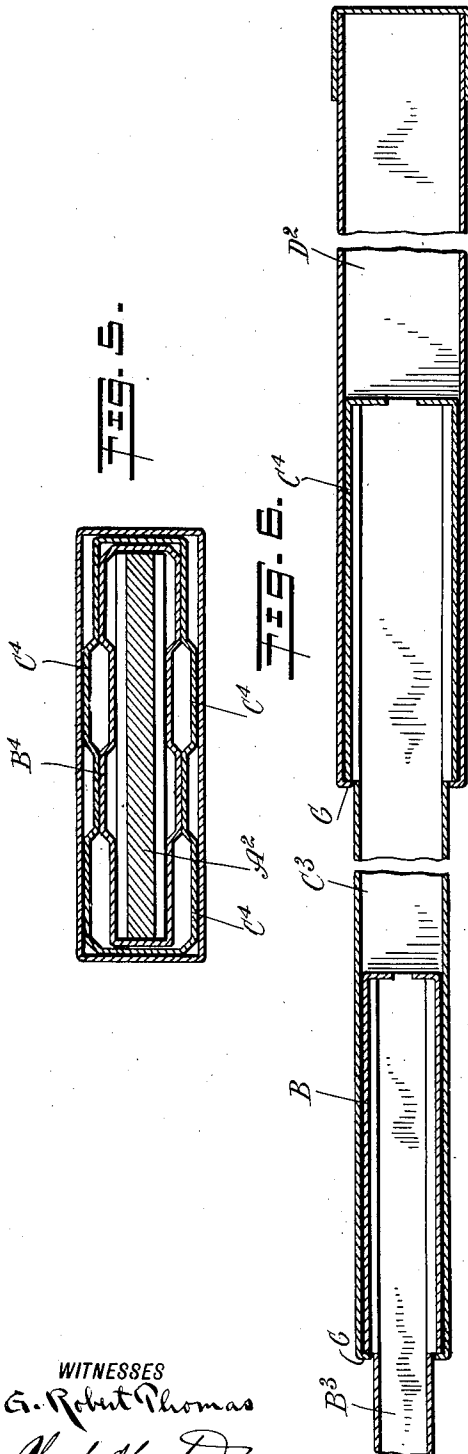
ATTORNEYS

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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

FREDERICK CHARLES GREATHEAD, OF DENVER, COLORADO.

TELESCOPING POCKET-RULE.

1,050,733.

Specification of Letters Patent.

Patented Jan. 14, 1913.

Application filed December 21, 1911. Serial No. 667,105.

To all whom it may concern:

Be it known that I, FREDERICK C. GREAT-HEAD, a subject of the King of Great Britain, and a resident of Denver, in the county of Denver and State of Colorado, have invented a new and Improved Telescoping Pocket-Rule, of which the following is a full, clear, and exact description.

The invention relates to measuring instruments, and its object is to provide a new and improved telescoping pocket rule, which is simple and durable in construction, cheap to manufacture, and arranged to fold compactly and take up comparatively little room and to allow convenient extending or folding with the use of but one hand. For the purpose mentioned, use is made of a plurality of telescoping sections provided with enlarged rear portions having sliding engagement with the following section and having a contracted front end for the enlarged rear end of a preceding section to abut against.

A practical embodiment of the invention is represented in the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a plan view of the telescoping pocket rule with the sections extended; Fig. 2 is an enlarged sectional side elevation of the same; Fig. 3 is a similar view of the same with the sections folded; Fig. 4 is a cross section of the same; Fig. 5 is a cross section of a modified form of the telescoping pocket rule; Fig. 6 is a sectional side elevation of the same; Fig. 7 is a sectional side elevation of a modified form of stop for the telescoping sections; Fig. 8 is an inverted sectional plan view of the same; and Fig. 9 is a cross section of another modified form of the telescoping pocket rule.

The telescoping pocket rule, illustrated in Figs. 1, 2, 3 and 4, consists essentially of a plurality of telescoping sections A, B, C and D, provided on their upper and under faces with the usual graduation representing linear measurement, as plainly indicated in Fig. 1. The forward end of the first section A is provided with a hook E adapted to engage the head of a board or other article on which the rule is to be used to permit of sliding the sections A, B and C into extended position by having hold of the rule with but one hand. The rear end of the last

section D is provided with a removable cap F normally fastened in place by screws F' or other suitable means, it being understood that when the cap F is removed access is had to the interior of the section D and the remaining sections to allow of oiling the same so as to insure an easy sliding of one section on the other. The first section A is preferably made solid and its rear end A' is enlarged to slidingly engage the next section B, which latter has its forward end B' contracted to form a stop for the bearing end A' to abut against, with a view to limit the outward sliding motion of the first section A relative to the second section B. The second section B has its rear end B² enlarged to slidingly engage the third section C, which latter has its front end C', contracted to form a stop for the enlarged rear end B² of the second section B. The third section C has its rear end C² enlarged to slidingly engage the last section D, and the latter has its forward end D' contracted to form a stop for the enlarged end C². Thus by the arrangement described the enlarged portions A', B², C² slidingly engage the sections B, C and D at the inside thereof so that the graduations on the sections are not marred on moving the sections into extended or closed positions, as the wear is on the enlarged ends A', B², C² and not on the graduated faces of the sections A, B and C. The sections B, C and D are preferably made of sheet metal, bent into box-like shape in cross section, as plainly indicated in Fig. 4, so that the telescoping pocket rule can be cheaply manufactured.

In the modified form shown in Figs. 5 and 6, the first section A² is similar to the one described above, while the following sections B³, C³ are provided at their rear ends with raised bearing surfaces B⁴, C⁴ slidingly engaging the following sections C³, D², and the forward ends of the sections are provided with inwardly-extending flanges G to limit the outward sliding movement of the sections.

In the modified form shown in Figs. 7 and 8, the rear end of one telescoping section H is provided with a struck-up lug H' adapted to abut against a struck-up lug I' of the next following section I so as to limit the outward sliding movement of one section relative to the other. The raised bearing surfaces B⁴ and C⁴ may be formed both

on top and bottom or only at the bottom, as indicated in Fig. 9. In this case, the first section A³ is similar to the sections A² and A above described, while the remaining sections A⁵, C⁵ and D⁵ are box-like in shape, and the sections B⁵ and C⁵ are provided with raised bearings B⁶ and C⁶ at their under sides only, as will be readily understood by reference to Fig. 9.

10 By reference to Fig. 1 it will be noticed that the hook E is approximately about one-half the width of the first section A to permit of conveniently using the rule both for butt and calipering measurements.

15 The ends B', C', D' are shown extended in a forward direction but may be turned under in a rearward direction to form the stops.

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

1. A telescoping pocket rule, comprising a plurality of telescoping sections, the first section being solid and having one end enlarged and provided with a hook at its other end, the other sections being formed of sheet metal bent into tubular form, and each having one end larger and its other end smaller than the intermediate portion, the hook of the first section being of a length approxi-

mately equal to one half the thickness of the last section.

2. A telescoping pocket rule, comprising a plurality of telescoping sections, the first section having one end enlarged and provided with a hook at its other end, the other sections having one end larger and its other end smaller than the intermediate portion, the hook of the first section being of a length less than the thickness of the last section.

3. A telescoping pocket rule, comprising a plurality of telescoping sections similar in cross section and all except the first section made of a single piece of sheet material bent into tubular form, the first section being solid, the sections being provided with integral raised bearing surfaces and stops to limit the outward sliding of the sections, a hook on the outer end of the first section, and a removable cap on the rear end of the last section.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FREDERICK CHARLES GREATHEAD.

Witnesses:

GILES P. HOWARD,
GEORGE L. GAUGAR.