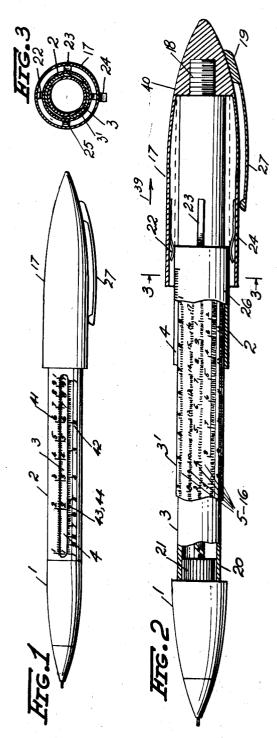
IMPROVEMENT IN OR RELATING TO SLIDE RULE

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IMPROVEMENT IN OR RELATING TO SLIDE RULE

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8 Claims. (Cl. 235-79.5)

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One of the objects of the invention is a writing instrument combined with a slide rule.

Another object of the invention is a slide rule of simple construction and minimum dimensions which lends itself to be easily combined with other drawing implements such as fountain pens or pencils.

These and other objects of the invention will be more fully apparent from the drawings annexed herewith, a description of which follows:

Figure 1 represents a pencil embodying certain features of the invention.

Figure 2 represents the pencil of Figure 1 somewhat enlarged and partially in section through the axis of the pencil.

Figure 3 represents a cross section of the pencil shown in Figures 1 and 2.

In Figure 1, part I represents the stylus member of a pen or pencil of more or less conventional structure, and part 2 represents a barrel telescopi- 20 cally arranged over an inner preferably cylindrical bar 3, which is visible through a longitudinal slot 4 of barrel 2.

As shown more clearly in Figure 2, inner and outer telescoping members 3 and 2 are provided 25 with slide rule scales 5 through 16 of otherwise well known design, which are either printed or engraved directly on the barrel or bar members, which may be of plastic, metal, or the like, or

Twelve scales are shown at 5 through 16. However, any desired number of scales may be used without exceeding the scope of the invention.

Cap 17 of plastic or the like is attached through 35 screw 18 to the top 19 of inner telescopic member 3 while the bottom end 20 thereof engages in a press fit the grooved or roughed portion of stylus member 1. Inside member 17 there are attached, symmetrically with respect to the pen axis, a 40 number, say four, leaf springs 22, 23, 24, and 25, engaging the upper portion 26 of barrel or outer telescopic member 2 to insure proper contact between inner and outer members of the telescoping arrangement and thereby the accuracy of 45 contact required for the operation of a slide rule.

21 represents a clip for holding the entire pencil in its place.

It is also understood that in Figures 1 and 2, ment to provide each side of the inner and outer telescopic members with two scales, one reversed with respect to the other, as schematically shown in Figure 1 at 41 and 42, and at 43 and 44, respectively.

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Figure 3 shows in cross section the guiding members arranged between cap 17 and outer member 2, which slides around and over inner member 3 or scale 3' pasted thereon.

While the invention has been described and illustrated only with respect to writing members, it may be combined with any type of structure of drawing instrument or accessory without exceeding the scope of the invention and may be of any 10 form, type, and construction whatsoever.

I claim:

1. In combination, a cap member and a tubular member supported inside said cap member spaced therefrom and another tubular member telescoping over said first tubular member into the hollow annular space between cap and first member, said telescoping members having longitudinal scales forming a slide rule with the outer telescoping member having at least one longitudinal slot and the inner telescoping member being slidable and rotatable with respect to said outer telescoping member to bring different longitudinal portions of said inner portion selectively in alignment with said slot.

2. Instrument according to claim 1, wherein said telescoping portions are cylindrical.

- 3. Instrument according to claim 1, wherein inner and outer telescoping portions are cylindrical, the outer cylinder having at least one applied thereto through a printed label, decal, or 30 longitudinal slot and the inner cylinder being slidable and rotatable within said outer cylinder to bring different longitudinal portions of said inner cylinder selectively in alignment with said slot.
 - 4. Instrument according to claim 1, comprising a cap member supported on the inner telescoping portion and having inside thereof gripping means engaging the periphery of said outer portion.
 - 5. Instrument according to claim 1, comprising a cap member supported on the inner telescoping portion and having at the inside thereof gripping means engaging the cap member the periphery of said outer telescoping portion, said gripping means including axially extending leaf springs in frictional engagement with the periphery of said outer portions at symmetrical points of said periphery.

6. A slide rule comprising at least two teleit is necessary because of this unilateral move- 50 scopable members, the outer member having at least one longitudinal slot provided with at least one scale, and the inner member having at least another longitudinal scale alignable with said outer longitudinal scale and having an extension 55 surrounding said inner member forming a space

therebetween for receiving the outer member when telescoping over said inner member and into said space. 7. Instrument according to claim 6, wherein said members have circular cross sections. 8. Instrument according to claim 1 wherein said inner portion has an extension surrounding said inner portion forming a space therebetween for receiving said outer portion when telescoping over said inner portion and into said space. NICHOLAS E. NICOLET.	Number 980,412 Gibson 2,526,408 Posson FOREIGN PATENT Number Country Germany 494,027 Germany 183,723 Great Britain Great Britain	Date Mar. 9, 1999 Mar. 17, 1930 Mar. 17, 1930 May 3, 1922
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