A. S. ROBINSON.

DRAWING OR RULING PEN.

APPLICATION FILED JAN. 17, 1905.

967,835. Patented Aug. 16, 1910.

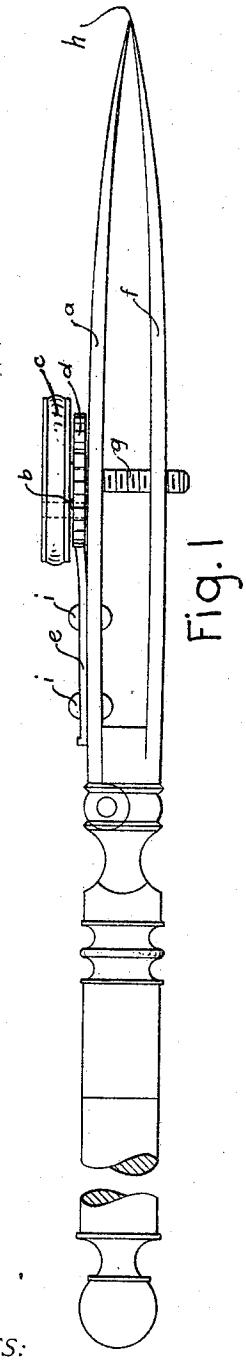

Fig. 1

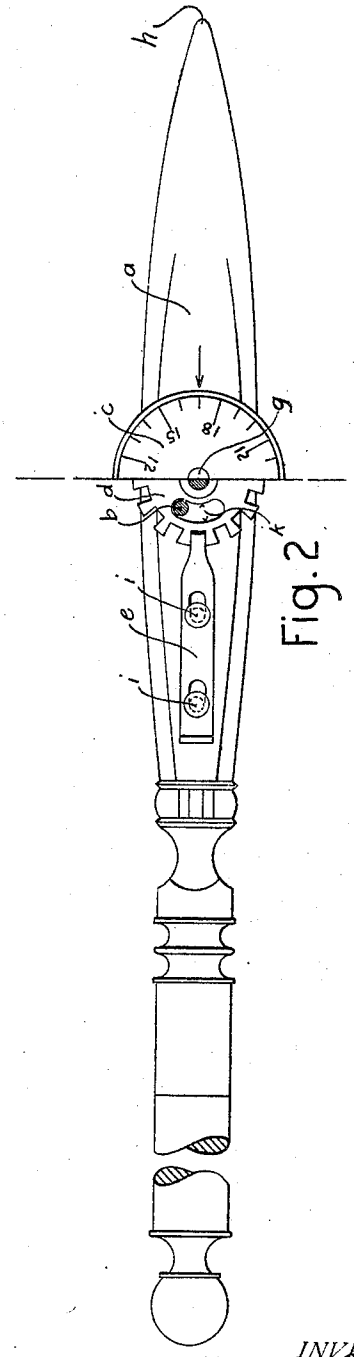

Fig. 2

WITNESSES:

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ARTHUR S. ROBINSON, OF DECATUR, ILLINOIS.

DRAWING OR RULING PEN.

967,835. Specification of Letters Patent. Patented Aug. 16, 1910.

Application filed January 17, 1905. Serial No. 241,514.

To all whom it may concern:

Be it known that I, ARTHUR S. ROBINSON, a citizen of the United States, residing at Decatur, in the county of Macon and State of Illinois, have invented a new and useful Improvement in Right-Line Drawing or Ruling Pens, of which the following is a specification.

My invention relates to improvements in drawing or ruling pens in which the pen is so gaged that the exact width of either "hair" lines or "shade" lines are produced at will; and the objects of my improvement are: first, to provide a gage for adjusting the pen mechanically to form lines of certain desired widths; second, to provide a regulating device by which the gage may be adjusted for wear of the parts; third, to afford a means of adjusting the pen and holding the desired adjustment for maximum or minimum widths of lines; fourth, to provide for changing, between the maximum and minimum widths of line by the use of one hand only; fifth, to provide a means by which the pen may be opened and re-adjusted exactly to its previous setting, by means of these attachments. I attain these objects by the mechanism illustrated in the accompanying drawing in which—

Figure 1, is a side view of a right-line, drawing or ruling pen and Fig. 2 is the top view of the same, showing half of the graduated thumb- or adjusting screw-head removed to show the parts under it.

Similar letters refer to the same parts in both views.

By means of the screw operated by the graduated fixed head *c*, the blades *a* and *f* are separated or closed, thereby accomplishing the adjustment of the points at *h*, which determines the width of the line. Between the blade *a* and the fixed head *c* is a loose disk *d* having a serrated or toothed edge resembling gear teeth. Between these teeth and the center of this disk is the segment of an annular slot, in which the pin *b* which is fixed in the head *c*, engages. On the face of the blade *a* between the adjusting screw and the joint of the pen is a slide or tongue *e*, which is held in place on the blade *a*, but has a longitudinal movement sufficient to allow it to become engaged with the teeth of the disk *d*. The disk *d* can thus be turned about its axis to any desired position, or held in place by the slide or tongue *e*. The fixed pin *b* projects below the lower surface of the graduated head *c* and engages in the slot *k* of the disk *d*, which limits the relative motion between the head *c* and the disk *d* to the length of the slot *k*. The disk *d*, in turn, is held in whatever position it is placed by the tongue *e*.

The blades of the pen are drawn together by turning the screw *g* by means of the graduated head *c*, the fixed pin *b* carries with it the disk *d*. When the points *h* form a line of the required fineness the tongue *e* is caused to engage in the disk *d*, holding it firmly in place, which prevents further movement of the head *c* in that direction. The motion of the head *c* may then be reversed, opening the blades, until the pin *b* reaches the other end of the slot *k*, when its motion is arrested and a line of the maximum width is the result. After noting the position of the slotted disk *d* and the graduated head *c*, the slide *e* may be disengaged. The blades may then be opened and closed in the usual manner. By closing the blades, and inserting the slide or tongue *e* in the same notch of the disk *d*, the pen becomes re-adjusted exactly to its previous setting. As there are in use a number of methods of opening and closing the blades of drawing pens, I do not make any claim for this feature, but

What I do claim for my invention, and desire to secure by Letters Patent is:

In drawing or ruling pens,—the combination of a fixed pin or post, projecting from the under side of the head of the adjusting screw in such manner as to permit of it engaging in an annular or concentric slot in a serrated or toothed disk or wheel,—with a serrated or toothed disk or wheel, adjacent to the said adjusting screw head and between the said screw head and the blade of the pen, centered and free to revolve upon the said adjusting screw as an axis, said serrated disk or wheel having said annular or concentric slot between the periphery and the center of the said toothed disk, engaging the said pin and limiting the rotary movement of said adjusting head to the length of said slot,—and a tongue or dog having a longitudinal motion and engaging the teeth

of the aforementioned disk or wheel and holding said disk or wheel in any desired position, thus permitting of a limited motion of the adjusting screw of the pen, variable by the adjustment of the serrated or toothed disk or wheel, substantially as and for the purposes set forth and described.

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

A. S. ROBINSON.

Witnesses:
M. G. PATTERSON,
W. B. HOSTETTER.