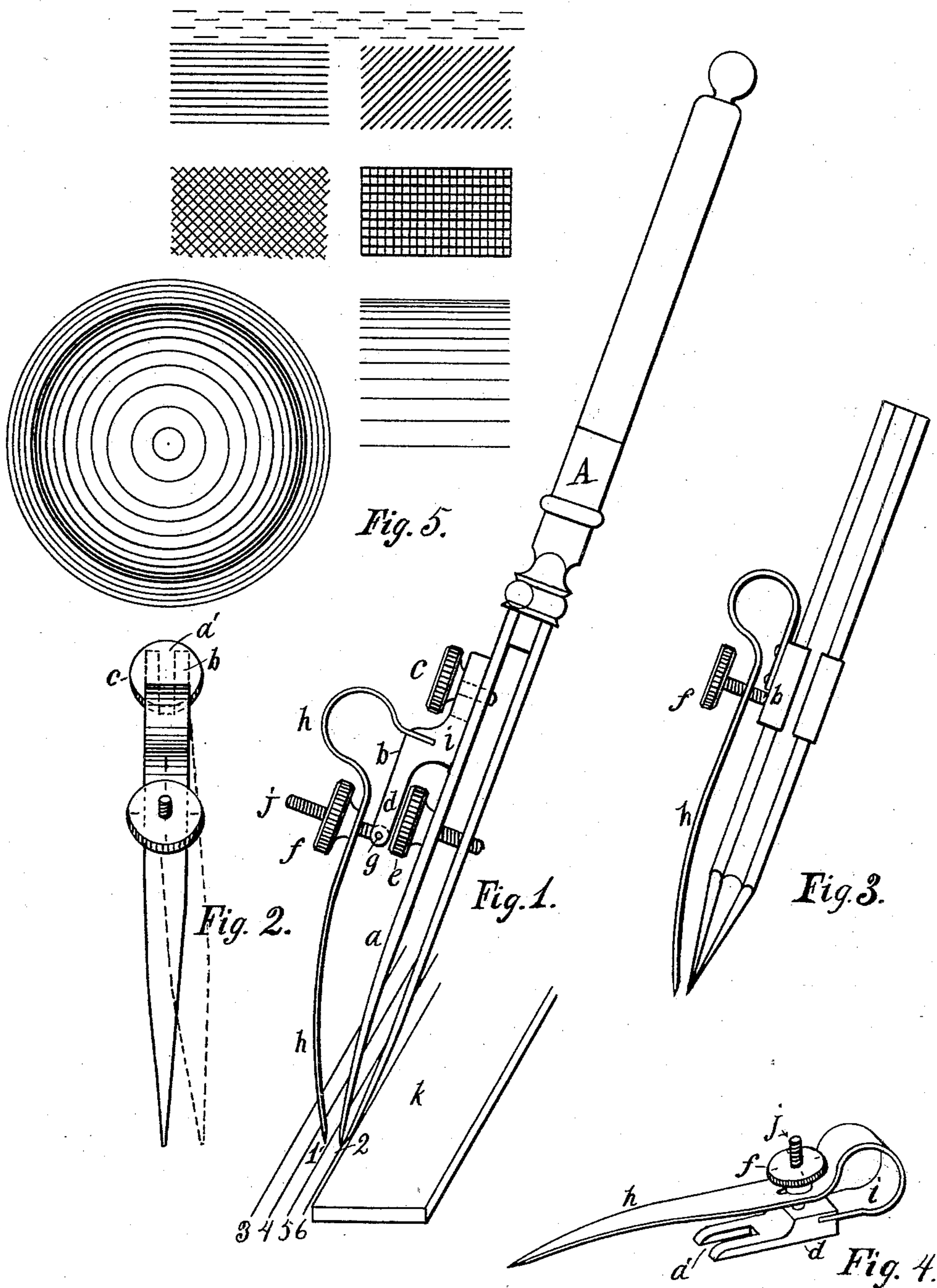


(No Model.)

R. ANDERSON.
DRAWING PEN AND PENCIL.

No. 405,650.

Patented June 18, 1889.



Witnesses:
Jared P. Newman.
Wm. H. Smith }

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UNITED STATES PATENT OFFICE.

RUFUS ANDERSON, OF ITHACA, NEW YORK.

DRAWING PEN AND PENCIL.

SPECIFICATION forming part of Letters Patent No. 405,650, dated June 18, 1889.

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To all whom it may concern:

Be it known that I, RUFUS ANDERSON, a citizen of the United States, residing at Ithaca, in the county of Tompkins and State of New York, have invented certain new and useful Improvements in Drawing Pens and Pencils; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to drawing pens and pencils, and its object is to afford a simple convenient means to facilitate the spacing of lines, cross-hatching, &c., in making drawings. The object is attained by the means illustrated in the accompanying drawings, which form a part of this specification.

Like letters refer to similar parts throughout the several views.

Figure 1 shows my device attached to an ordinary drawing-pen. Fig. 2 is a plan of the attachment as shown in Fig. 1. Fig. 3 illustrates its application to a pencil. Fig. 4 illustrates a method of making the device interchangeable with several pens. Fig. 5 exhibits specimens of work done by means of the device.

Fig. 1 clearly shows the construction of the attachment, which I will call a "spacer." To the upper bow *a* of the pen *A* a block *b* is secured by means of a screw *c* passing through the block and screwing into the bow *a*. This block has an extension *d*, reaching forward and over the pen-adjusting screw *e*, a sufficient space being allowed for the free movement of the said screw. The outer end of the block *b* is provided with a screw *j*, which is free to swing on the pivot *g*. To a suitable part of the block a spring *h* is rigidly attached, as indicated at *i*. The spring is preferably given a curve at its upper end to increase its elasticity and to aid in maintaining a good bearing-space on its surface for the adjusting-screw. It reaches forward to an equal length with the bows of the pen, as shown. The screw *j* passes through the spring, and the spring is adjustable by means of the nut *f*. To make the spring further adjustable, so the point can be made to extend beyond or within the point of the pen, the block

b is formed with a slot *a'*, as is clearly shown in Fig. 2, in which the fastening-screw *c* is not shown. The shoulder of the screw passes through the slot *a'*, so that by loosening the screw the spring or spacer may be moved backward or forward, and be held in place securely by tightening the screw. The hole through the spring, through which the screw *j* passes, is likewise slotted to enable the screw to easily adjust itself to variations of positions of the spring.

Fig. 4 represents a simpler method of attaching the spacer to a pen, and while not possessing all the advantages of that shown in Fig. 1 is yet interchangeable with several pens, and does not require the drilling and tapping of the pen-bow. The block *d* has the spring firmly attached to it, and is provided with an adjusting screw and nut; but instead of the block *d* having a slotted extension rearward of the spring the extension is toward the spring's point, and, being slotted, is simply slipped under the head of the pen-adjusting screw *e*, Fig. 1, as illustrated. Of course the spring-tension of the bow *a* toward the head of the screw *e* is all that retains the spacer in place, yet in many instances that will be found altogether sufficient.

Fig. 3 illustrates how the spacer may be applied to lead-pencils. The holding-block *b* is attached to or may form a part of a spring-clasp *c'*, which is made of a size suitable for slipping on pencils, as shown. The spring *h* is then secured to one end of the block *b*, when the spring and adjusting-screw may be made to operate as that shown in Fig. 1, or as here shown—*i. e.*, the spring having a tension toward the pencil and is lifted from it in adjustment by means of the screw *j*, which fits a thread in the spring and rests its point against the block *b*.

In Fig. 1 a clear illustration is given of how this spacer is to be used. By means of the adjusting-nut *f* any desired space is secured between the point 1 of the spring *h* and the point 2 of the pen-bows. A regular and exact turning of the adjusting-screw *j* is secured by the indexing of the screw-head, as indicated in Fig. 4. When the first line is drawn, as 3, then the space between the lines being determined by adjustment of the spring *h* the

rule *k* is moved for each succeeding line, so the point *l* of the spring just touches or is exactly over the last line made. If the spacing is to be unequal, the space between the pen and spring points is to be varied to suit the work. Broken lines may be made by setting the spring-point to one side of the pen-points in a line with the pen-point, as indicated by dotted lines in Fig. 2. A few specimens of the work of this device are given under the designation Fig. 5.

Although this device can be sold at a low price, when one does not wish to buy a spacer for each of his set of pens one spacer may be used by having all the pens in a set provided with a hole tapped in the bow, and the work of changing the spacer from pen to pen is only that of a moment. With the form described in Fig. 5, of course even the tapping of holes is avoided.

It is obvious that the spacer may be a permanent attachment to the pen, but, as such, can hardly be subject to the same variable scope as I have shown.

I do not wish to be limited to a particular

manner of attaching this "spacing-spring" to the pen or pencil so long as the principle as herein described is not departed from.

What I claim, and desire to secure by Letters Patent, is—

1. A spacer for a drawing-pen, consisting of a spring secured to a block, and an adjusting-screw attached to the block and extending through the spring, having an adjusting-nut on its outer end, the said block being slotted to admit of its being inserted under the pen-adjusting nut, substantially as shown and described.

2. The combination, with the adjusting-screw and top bow of a drawing-pen, of a slotted block *d*, a spring *h*, and adjusting-screw *e*, whereby the spring may be adjusted longitudinally and laterally with the points of the pen, substantially as shown and described.

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

RUFUS ANDERSON.

Witnesses:

JARED P. NEWMAN,
WM. HAZLITT SMITH.