(No Model.)

F. A. ALTENEDER.

DRAWING PEN.

No. 575,408. Patented Jan. 19, 1897.

FIG. 3.

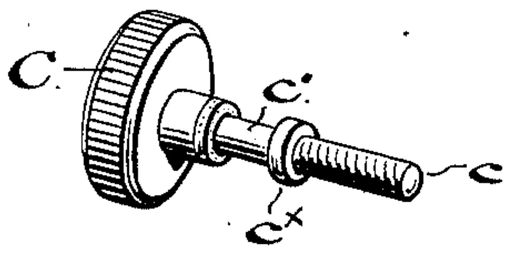
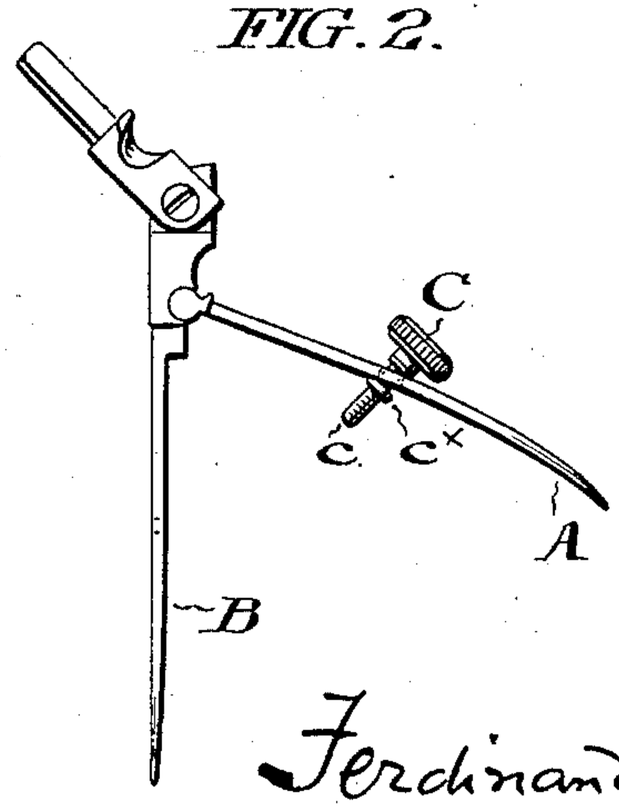


FIG. 1.

FIG. 2.



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UNITED STATES PATENT OFFICE.

FERDINAND A. ALTENEDER, OF PHILADELPHIA, PENNSYLVANIA.

DRAWING-PEN.

SPECIFICATION forming part of Letters Patent No. 575,408, dated January 19, 1897.

Application filed November 21, 1896. Serial No. 612,922. (No model.)

To all whom it may concern:

Be it known that I, FERDINAND A. ALTENEDER, a citizen of the United States, residing in the city and county of Philadelphia, in the State of Pennsylvania, have invented certain new and useful Improvements in Drawing-Pens, of which the following is a specification.

The pens to which my invention relates are those in which two blades, one of which is fixed and the other relatively movable either by being hinged with respect to the fixed blade or by the inherent resiliency of its normal relative set,—are connected by an adjusting screw the unthreaded portion of the shank of which passes freely through an aperture in the movable blade, and which is engaged as to its threaded portion with a threaded aperture in the fixed blade.

In pens of the foregoing character it frequently happens that when the adjusting screw is disengaged from the fixed blade in the separation of the blades for cleaning or sharpening, the screw falls out of the opening in the movable blade and is lost.

My invention aims to obviate this disadvantage and to provide means for permanently attaching or securing the adjusting screw to the movable blade.

To this end my invention comprehends the application to the shank of the adjusting screw, of a stop or collar, which, in the use of the pen, when the screw is engaged with both blades, is located and intervenes between the blades; and which, when the screw is disengaged from the fixed blade for the separation therefrom of the movable blade, prevents its disengagement from the movable blade and its consequent possible loss.

Pens embodying my improvements are represented in the accompanying drawings and hereinafter described.

In the drawings,

Figure 1 is a side elevational view of a drawing pen embodying a spring movable blade and my invention, the parts being represented in the position which they occupy when the blades are secured together for use in drawing.

Figure 2 is a similar view of a drawing pen of a type used in spacing-dividers with a pen-leg, the movable blade of the pen leg being hinged to the fixed blade and embodying my invention, and being represented in the position which the parts occupy when it is separated from the fixed blade.

Figure 3 is a view in perspective upon an enlarged scale, of an adjusting screw embodying my invention.

Similar letters of reference indicate corresponding parts.

In the drawings,

A represents the movable blade and B the fixed blade of a drawing pen.

The adjusting screw is formed with the usual thumb head C, and with the usual shank *c* threaded as to its outer portion.

$c^{\times}$ is a circular flange or collar on the shank of the screw, which constitutes, when applied, a stop to prevent the loss of the screw from the movable blade, to which it is, as shown in the drawings, attached.

This stop may either be formed integral with the shank of the screw, or it may be, as shown in Figure 3, threaded upon it, and, preferably, be tightly screwed up to the upper vanishing point of the thread of the shank so as to be tightly locked thereupon.

When the stop is formed integral with the shank it need not necessarily completely circumscribe the shank, but may be formed as a radially projecting segmental or other shaped lug or wing.

When, however, the stop is formed integral with the shank of the screw, in order to permit of the application of the device as an entirety to the movable blade of the pen, it is necessary to make the thumb head detachable from the shank, conveniently by threading an aperture in said head for the reception of the upper end of the shank, which, in such construction, must also be threaded.

It is preferable to leave an unthreaded portion c' upon the shank intermediate of the stop and the thumb head. This, however, is not essential, as the aperture in the movable blade may be made of sufficient diameter to permit of the free passage through it of a shank threaded throughout its length.

While it is, of course, both usual and preferable to apply the adjusting screw to the movable blade, it is possible to apply it to the fixed blade, and my invention is broad enough to comprehend either application.

It is also within the scope of my invention that both of the blades should be hinged, so as to be relatively separable either from the other, or that both should be spring blades the normal set of which is such as to cause them to stand apart, and to be only caused to approach under the action of the adjusting screw.

Having thus described my invention, I claim and desire to secure by Letters Patent—

1. A drawing pen in which are embodied two blades and an adjusting screw threading into one of said blades, and provided with a turning head, and with a stop upon its shank, which stop, in the application of the screw to the blades, is intermediate of said blades,—substantially as and for the purpose set forth.

2. A drawing pen in which are embodied a fixed blade, a movable blade, and an adjusting screw threading into one of said blades, and provided with a turning head, and with a stop upon its shank which stop, in the application of the screw to the blades, is intermediate of said blades,—substantially as and for the purpose set forth.

3. In a drawing pen, in combination with the blades, an adjusting screw provided with a thread which engages with a threaded aperture within one of the blades, and which is provided with a turning head located beyond the other of said blades, and with a stop or lug intermediate of said blades,—substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my invention I have hereunto signed my name this 16th day of November, A. D. 1896.

FERDINAND A. ALTENEDER.

In presence of—
GEO. W. REED,
J. BONSALL TAYLOR.