

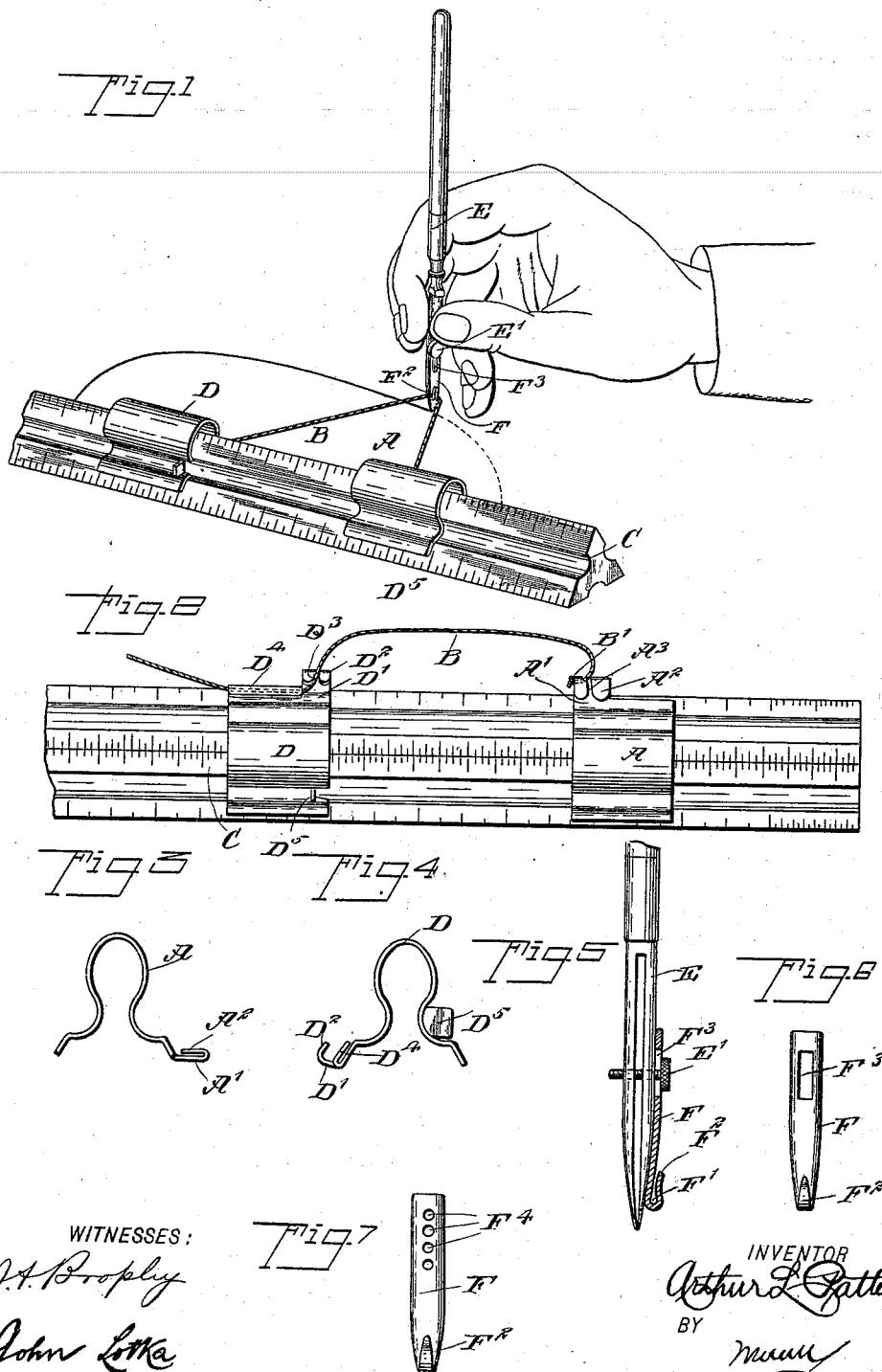
No. 647,867.

Patented Apr. 17, 1900.

A. L. PATTERSON.
DRAWING IMPLEMENT.

(Application filed Feb. 19, 1900.)

(No Model.)



WITNESSES:

J. A. Proply
John Latta

INVENTOR

Arthur L. Patterson

BY

Mann
ATTORNEYS

UNITED STATES PATENT OFFICE.

ARTHUR LOW PATTERSON, OF CHINA GROVE, NORTH CAROLINA.

DRAWING IMPLEMENT.

SPECIFICATION forming part of Letters Patent No. 647,867, dated April 17, 1900.

Application filed February 19, 1900. Serial No. 5,729. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR LOW PATTERSON, a citizen of the United States, residing at China Grove, in the county of Rowan and State of North Carolina, have invented a new and Improved Drawing Implement, of which the following is a full, clear, and exact description.

My invention relates to drawing implements, and has for its object to provide a simple and inexpensive means for drawing ellipses. To this end I provide the attachments fully described hereinafter, and specifically defined in the claims.

Reference is to be had to 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 perspective view illustrating the application of my invention. Fig. 2 is a plan showing a ruler with my attachment applied thereto. Figs. 3 and 4 are end views of the two clips employed in connection with the ruler. Fig. 5 is an end elevation of a ruling-pen provided with my attachment, the attachment being shown in section. Fig. 6 is a face view of the attachment shown in Fig. 5, and Fig. 7 is a face view of another form of the said attachment.

In carrying out my invention I employ two clips adapted to be secured to a ruler. One of the clips A is provided at its lower end with a projecting portion A', having a return portion A² above it, said return portion being slitted, as at A³. The two portions A' A² form a clamp for a cord or string B, which is passed between the members A' A² and out through the slit A³, as shown in Fig. 2, the endwise movement of the string being prevented by tying a knot B' in it. The clip A fits upon a ruler C, for instance, of triangular form, as shown, and the clamp A' A² projects from the edge of the said ruler. The other clip D has at one side a portion D', projecting to the same extent as the portion A' and having a return-lip D², slotted at D³. Toward the other end of the clip D extends a turned-up portion D⁴, forming a clamp, but not projecting so far from the body of the clip as the lip D². On the other side of the ruler the clip D is provided with a thumb-piece D⁵. The string B is first

passed through the slit D³ of the lip D² and then through the longitudinal clamp formed by the turned-up portion D⁴.

The string B is adapted to form the guide for an attachment on the ruling-pen E. This pen may be of any usual type, and the attachment consists of a plate F of suitable formation to fit one of the members of the ruling-pen and provided at its bottom with a passage-way F' for the string B. This passage-way is preferably formed by bending up the end of the attachment-plate F to form a hook F². This attachment-plate is secured to the ruling-pen by means of a thumb-screw E' and is adjustable thereon, the screw passing for this purpose either through a vertical slot F³ in the attachment-plate, as shown in Figs. 5 and 6, or through one of a series of superposed holes F⁴, as shown in Fig. 7.

The manner of using the implement is clearly shown in Fig. 1. The clips A and D are set according to the scale on the ruler, each clip indicating one of the foci of the ellipse. The string is then secured to the clips in the manner hereinbefore described and is also passed through the hook F² of the attachment-plate of the ruling-pen, and the ellipse may then be drawn in the usual manner. It will be observed that since the points at which the string B is fastened—that is, the slits A³ and D³—are somewhat in advance of the corresponding edge of the clips A D the ellipse or, rather, the half-ellipse can be drawn very accurately even to the ends of the greatest diameter. As the string B is held somewhat above the paper or drawing surface and not in contact with it, the resistance to the movement of the implement is reduced and the danger of blurring the lines is avoided. The vertical adjustability of the plate F is of advantage, since in drawing a large ellipse it will be advisable to raise the attachment-plate F to compensate for the greater amount of sagging in the string. Furthermore, this adjustability allows the plate F to be used with ruling-pens of various sizes.

The implement is simple and compact, and even small ellipses can be readily drawn with it, as the clips A and D have the string-clamping devices at their adjacent ends and can be moved closely together. The clip A is gen-

erally stationary, and the draftsman with his left hand can readily adjust the string B and the clip D.

It will be seen that my improved implement has no sharp points requiring to be forced into the paper and mutilating it.

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

10 1. A drawing implement, comprising a string, a ruler, two clips adapted to be slipped on the ruler and each provided with a string-clamp, a ruling-pen and a plate adapted for attachment to the ruling-pen and provided
15 with a passage-way for the string.

2. A drawing implement, comprising a string, a ruler, two clips adapted to be slipped on the ruler and each provided with a string-clamp projecting from the edge of the clip, a
20 ruling-pen and a plate adapted for attachment to the ruling-pen and provided with a passage-way for the string.

3. A drawing implement, comprising a string, a ruler, two clips adapted to be slipped
25 on the ruler and each provided with a string-clamp projecting from the edge of the clip the same distance as the clamp of the other clip, one of the clips being further provided with an additional string-clamp arranged in-
30 wardly with reference to the first-named clamp, a ruling-pen and a plate adapted for attachment to the ruling-pen and provided with a passage-way for the string.

4. A drawing implement, comprising a

string, a ruler, two clips adapted to be slipped 35 on the ruler and each provided with a string-clamp projecting from the edge of the clip the same distance as the clamp of the other clip, one of the clips being further provided with an additional string-clamp arranged in- 40 wardly with reference to the first-named clamp, and with a projection or thumb-piece located on the other side of the clip, a ruling-pen and a plate adapted for attachment to the ruling-pen and provided with a passage- 45 way for the string.

5. A drawing implement, comprising a string, a ruler, two clips adapted to be slipped on the ruler and each provided with a string- 50 holding device, a ruling-pen and a plate adapted for attachment to the ruling-pen and provided at its lower end with a hook forming a passage-way for the string.

6. A drawing implement, comprising a string, a ruler, two clips adapted to be slipped 55 on the ruler and each provided with a string-holding device, a ruling-pen and a plate adapted for attachment to the ruling-pen and provided with a passage-way for the string, said plate having means for adjusting it vertically. 60

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

ARTHUR LOW PATTERSON.

Witnesses:

T. D. CASTO,
G. M. DUVAL.