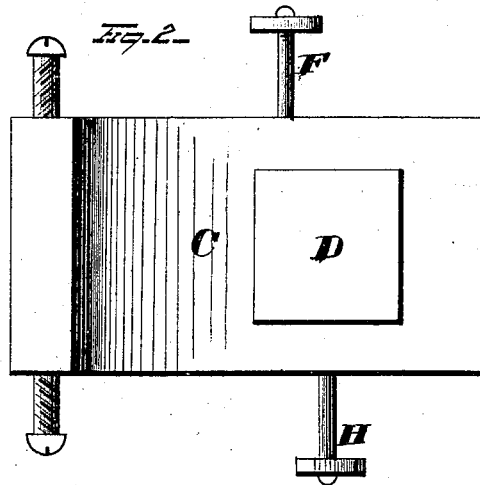
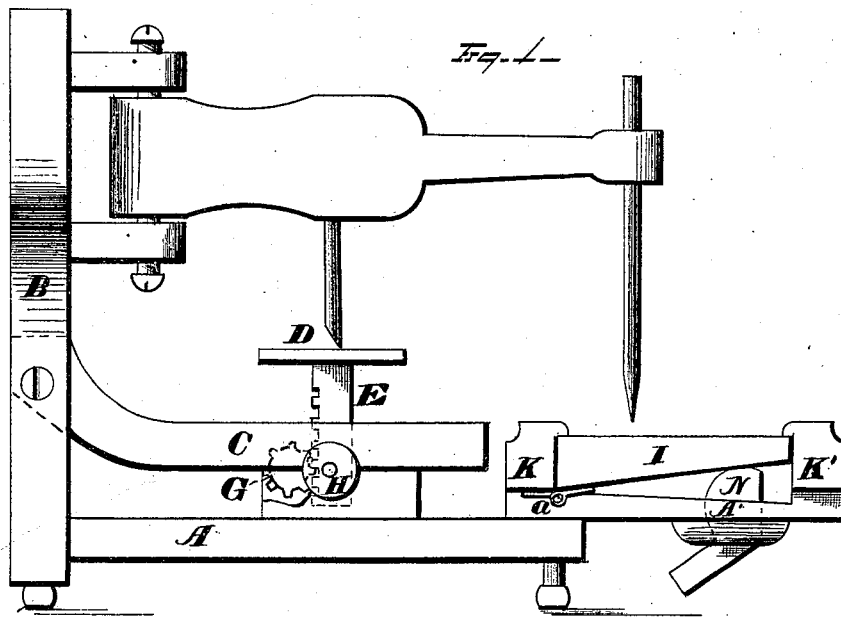


W. S. WIGHT.
Pantographic Engraving Machine.

No. 197,507.

Patented Nov. 27, 1877.



WITNESSES
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UNITED STATES PATENT OFFICE.

WILLIAM S. WIGHT, OF GARRETTSVILLE, OHIO.

IMPROVEMENT IN PANTOGRAPHIC ENGRAVING-MACHINES.

Specification forming part of Letters Patent No. **197,507**, dated November 27, 1877; application filed August 2, 1876.

To all whom it may concern:

Be it known that I, WILLIAM S. WIGHT, of Garrettsville, in the county of Portage and State of Ohio, have invented certain new and useful Improvements in Pantographic Engraving-Machines; 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in pantographic engraving-machines; and consists in the adjustable working-table beneath the diminishing point of the pantograph, and the hinged and flanged tracing-table beneath the enlarging point of said pantograph, as will be hereinafter more clearly and fully set forth.

Figure 1 of the drawing represents a side view of a pantographic engraving-machine embodying my invention, and Fig. 2 represents a plan view of my adjustable working-table.

A represents the base of the machine, at the rear end of which is secured an arched beam or frame, B. This frame B, which serves as a standard or support to the pantograph, is made rigid, and this feature, in connection with my adjustable table or platform D, constitutes one of the main improvements over the device shown in Letters Patent to me, granted February 2, 1875, No. 159,488.

By the provision herein shown I am enabled to bring the work up to the point of the pantograph without disturbing the line of direction of the pantograph itself, whereas in my former device, above referred to, the pantograph is made vertically adjustable. By experience with said device, I have sometimes found difficulty in operating upon irregular surfaces, and this difficulty has been overcome by bringing the work up to the pantograph-points instead of bringing the pantograph down to the work, and herein consists the essential feature of my invention.

To the said frame B is pivoted the swinging bed C, which extends forward and rests on the base A.

D is the working-table, firmly secured to the upper end of the rack-carrying slide E.

F is a shaft, journaled in suitable bearings in, or attached to, the bed C, and carrying on its inner end a pinion or small spur-gear, G, which engages with the rack on the slide E.

H is a set-screw, by which the table is retained or fastened at any desired altitude.

The base A is provided with an opening, to admit the lower part of the slide E, and accommodate its vertical movement.

By means of this device the working-table, holding the article to be engraved, can be readily and accurately elevated and lowered—that is, adjusted relatively to the pantograph, to suit the various thicknesses of the articles to be operated upon—and when adjusted the set-screw H firmly holds the table D in position.

I is the form or tracing table, hinged at *a*, as shown.

K K' are the two flanged side pieces, the flanges of which project over the tracing-table a sufficient distance to retain the article placed thereon.

N is a cam, pivoted in the base A', and operating on the under side of the tracing-table, to elevate or lower the end opposite the hinges.

The operation of this device is as follows: The article or plate to be traced, of the same width as the form or tracing table, is placed thereon, and then the cam N is operated to elevate the table, and thus cause the edges of the tracing article to be pressed between the tracing-table and the flanged side pieces, thus firmly retaining the same in position; or a flange may be turned on the tracing article to fit between the rear side of the form-table and the side piece K.

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

1. In a pantographic engraving-machine, the combination, with a fixed pantograph-sup-

port, of a vertically-swinging bed-plate and a vertically-adjustable working-table, substantially as and for the purpose described.

2. In an engraving-machine, the form or tracing table I, in combination with the flanged side pieces K K' and cam N, substantially as and for the purpose described.

3. In an engraving-machine, the hinged form or tracing table I, in combination with

the flanged side pieces K K' and cam N, substantially as and for the purpose described.

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

WILLIAM S. WIGHT.

Witnesses:

JAMES NORTON,
ROLLIN S. WEBB.