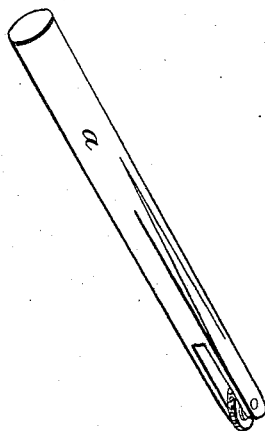


B. Chambers,
Engravers' Tool.

N^o 5155.

Patented June 12, 1847.



UNITED STATES PATENT OFFICE.

BENJAMIN CHAMBERS, OF WASHINGTON, DISTRICT OF COLUMBIA.

BANK-NOTE ENGRAVING.

Specification of Letters Patent No. 5,155, dated June 12, 1847.

To all whom it may concern:

Be it known that I, BENJAMIN CHAMBERS, of the city of Washington and District of Columbia, have invented new and useful
5 Improvements in the Mode of Engraving a Ground for Bank-Notes, Checks, &c., and that the following is a full, clear, and exact description of the principle or character which distinguishes them from all other
10 things before known and of the manner of making, constructing, and using the same.

A specimen accompanies this description and an enlarged view of the tool by which the work is accomplished is shown in the
15 drawing.

The nature of my invention consists in covering a plate with parallel lines of words instead of plane lines as is done in the ruling machine, but instead of making the lines
20 of words commence regularly, I cause the rollett containing the word or words to turn freely and at random so as to bring any one of the letters of the word promiscuously to the beginning of the line, so that when such
25 a succession of these lines is made close together the impression from the plate on which they are made has an irregular wavy appearance, caused by the lines commencing with any letter that may accidentally be next
30 the plate.

To construct my apparatus for producing the above described effect, I engrave on a piece of soft steel any word or words that I desire to appear on the plate; the steel is
35 then hardened as is practised for the purpose of transferring vignettes. I then form a small circular die or rollett of soft steel of a circumference sufficient to contain the engraved words on the hardened steel, the
40 periphery of which should be no broader

than the letters to be transferred thereto are high. The letters are transferred from the hardened steel to the rollett by the process ordinarily used by bank note engravers, and is then hardened as the steel die above
45 named. This rollett is attached to the end of a handle or stock designated in the drawing by the letter (a), and is so attached as to be free to turn on its axis between the jaws in which it turns as clearly shown in
50 the drawing. This tool is accurately adjusted in a ruling machine and operated in the same way as parallel lines are produced in the ordinary way with a sufficient pressure to stamp the letters raised on the sur-
55 face of the rollett to their base. At the end of each line the die is free to move more or less which causes it to deviate from a regular commencement at a particular word or letter, each line commencing accidentally,
60 and thus producing the irregular appearance noted on the specimen, and in infinite and ever varying variety resulting from this random combination of letters and spaces.

Having thus fully described my improve-
65 ments, what I claim therein as new and desire to secure by Letters Patent is—

Producing lines of characters of any description in an irregular juxtaposition upon metal plates used for printing, substantially
70 as described, by means of a circular die or rollett turning freely on its axis so as to commence each line at any part of its circumference that may chance to be next the plate.

B. CHAMBERS.

Witnesses:

G. WELSH,
PRESTON STARRETT.