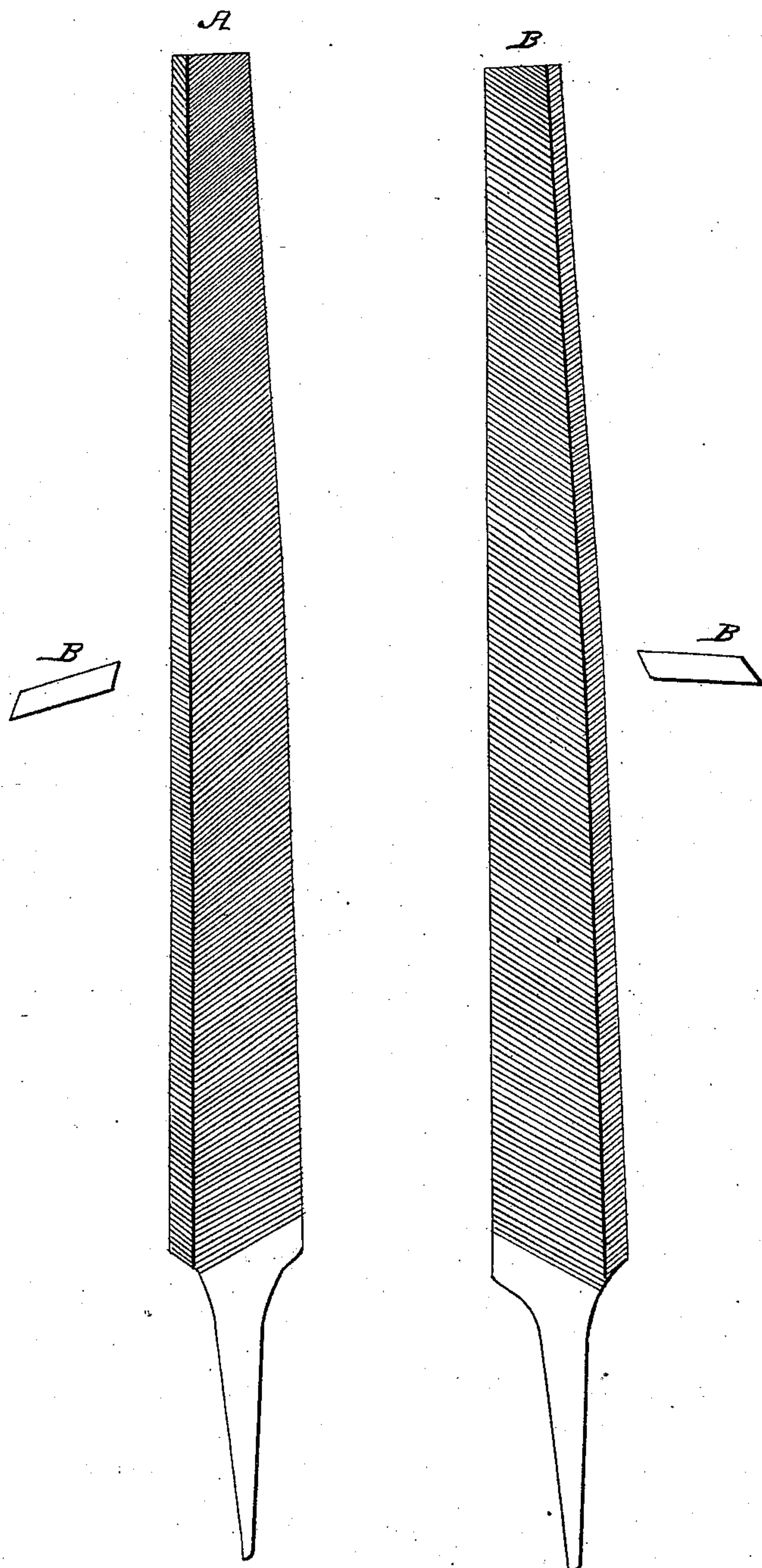


G. M. RAMSAY.

Making Files.

Patented Aug. 12, 1856.

No. 15,525.



# UNITED STATES PATENT OFFICE.

GEORGE M. RAMSAY, OF NEW YORK, N. Y.

## FILE.

Specification of Letters Patent No. 15,525, dated August 12, 1856.

*To all whom it may concern:*

Be it known that I, GEO. M. RAMSAY, residing in the city of New York, in the county and State of New York, have invented a new, useful, and Improved Mode of Making Flat Files; and I do hereby declare the following to be a full, clear, and exact description of the same, the nature of which consists in making flat files in pairs or with right and left cutting corners or edges, with grooves in accordance with the same, all of which is fully set forth in the following specification, accompanying drawings, and letters of reference marked thereon, making part of the same, wherein—

Figures 1 and 2 and letters A and B show a full length view of a pair and a transverse section of the same, showing the manner and extent each edge of each one constituting a pair is beveled and grooved. Each bevel is such as to form an angle the same or near the same as an equilateral triangle, while the grooves of both the edges and sides are made or cut to converge and diverge to and from each corner, whereby the sides of either and each corner present to the object acted upon

a like cutting surface, which prevents the file from sliding, as does a three cornered file, owing to its grooves being made to run in one direction on all three sides of the file. The utility of constructing files thus is often met with in machinery where various intricate corners exist, also in filing saws, wherein it is always desirable to file half the teeth from alternate sides and that the flat surface of the file be equal to the full depth of the face of the tooth while the bevel also serves as a guide for the pitch of the tooth.

What I claim as my invention and desire to secure by Letters Patent of the United States is—

Constructing flat-files in pairs, or with right and left cutting edges, or corners as described, also in making the grooves to run in the manner described in combination with said files, all substantially as herein set forth.

GEO. M. RAMSAY.

Witnesses:

EDW. A. CLARK,  
JOHN E. MOSES.