(No Model.)

E. W. JOHNSON.

FILE.

No. 438,270. Patented Oct. 14, 1890.

Fig. 1.

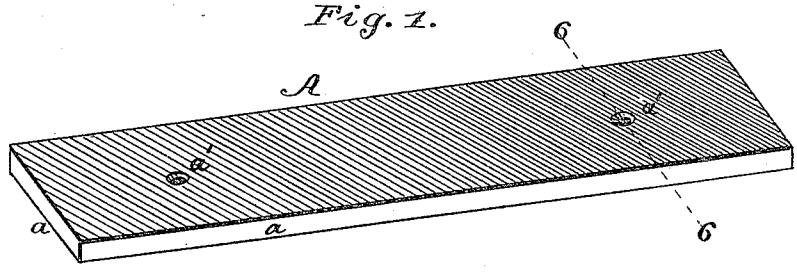


Fig. 2.

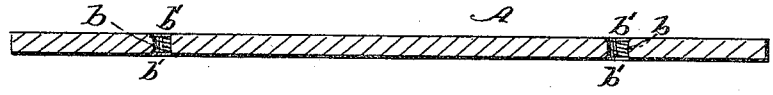


Fig. 3.

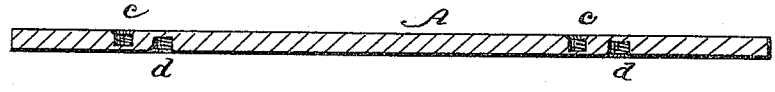


Fig. 4.

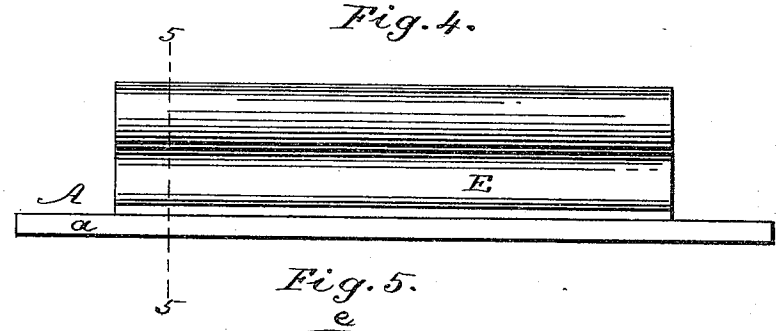


Fig. 5.

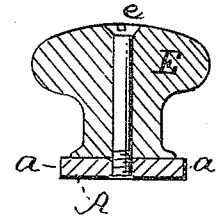
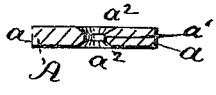


Fig. 6.



Witnesses
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UNITED STATES PATENT OFFICE.

EDWARD W. JOHNSON, OF OLEAN, NEW YORK.

FILE.

SPECIFICATION forming part of Letters Patent No. 438,270, dated October 14, 1890.

Application filed April 15, 1890. Serial No. 348,024. (No model.)

To all whom it may concern:

Be it known that I, EDWARD W. JOHNSON, a citizen of the United States, residing at Olean, in the county of Cattaraugus and State of New York, have invented certain new and useful Improvements in Files; and I do 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 appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

Figure 1 is a perspective view of one form of the invention. Fig. 2 is a longitudinal section showing another form. Fig. 3 is a similar section of another form. Fig. 4 represents a file with a holder. Fig. 5 is a section on line 5 5, Fig. 4. Fig. 6 is a section on line 6 6, Fig. 1.

The present invention relates to an improvement in files.

In the use of files as ordinarily constructed there are found to be various disadvantages which render them hard to handle. As usually constructed, they have a handle at the end or a handle at each end. In using such files, especially in finishing narrow apertures—such as key-seats—the file can only be used the length of the abrading-surface, as the handle cannot enter such apertures and be held in the hand. With a file constructed as hereinafter set forth a handle can be secured lengthwise of the file, and a portion of it, at least, of a width no greater than that of the file. Hence the file can be inserted into an aperture no wider than the file itself, and the surface therein be finished the entire length.

The invention therefore consists in a file provided with handle securing or retaining seats, as will be hereinafter set forth.

In the annexed drawings, the letter A indicates an ordinary file, made, preferably, with safe edges *a*. At the proper distance apart holes are made in this file. These holes may be plain perforations a', countersunk at a^2, or they may be threaded perforations *b*, countersunk at b', or they may be two sets of holes *c d*, threaded and countersunk, but not going entirely through the file.

With a file thus constructed any kind of a holder may be used. The holder shown in an application for a United States patent filed of same date herewith is the one for which it may be regarded as peculiarly adapted, and in said application one form of this file is shown and its use with the holder described; but this file may be used with any kind of a holder. The file itself is a distinct article of manufacture to be furnished to any consumer, who may put any kind of handle to it.

In Figs. 4 and 5 is shown a simple wooden handle E, which may be applied to the file by simply passing screws *e* through the handle into the file.

I am aware that it is not novel to provide files with holes, as I am aware that a combined file and rasp has been made by bolting or riveting a rasp and file together, the bolt or rivet passing through holes in both the rasp and file; but in this device there is no adaptation to a handle which is to be secured at these holes.

Having thus described my invention, what I claim is—

As a new article of manufacture, the file provided with handle-securing seats, as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

EDWARD W. JOHNSON.

Witnesses:

THOS. HOUGHTON,

GRAHAM L. GORDON.