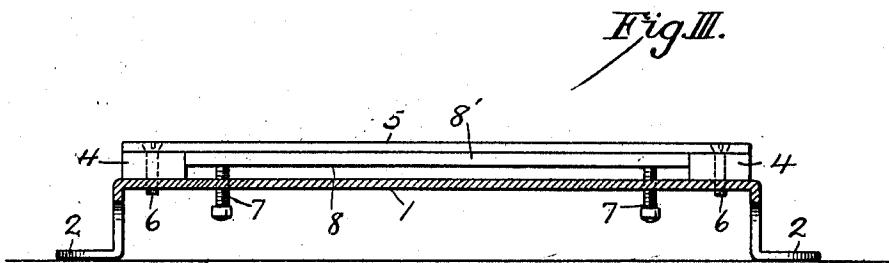
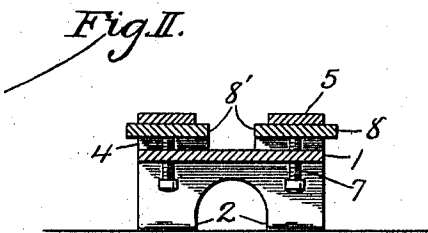
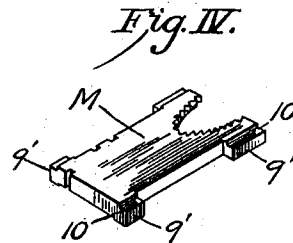
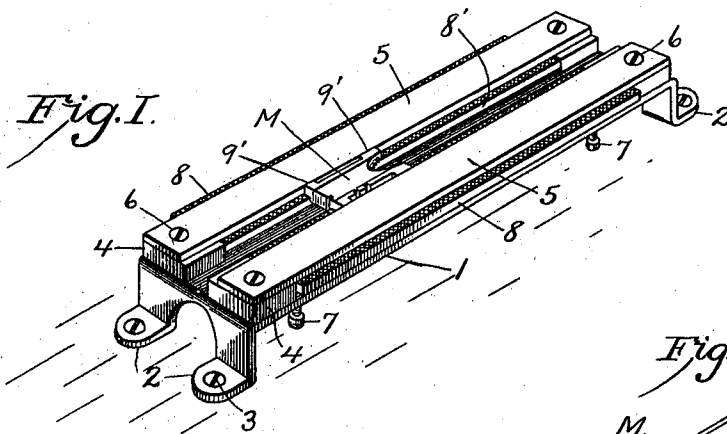


G. E. WALLIN.
MATRIX EAR FILE.
APPLICATION FILED JAN. 3, 1910.

982,554.

Patented Jan. 24, 1911.



WITNESSES:

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UNITED STATES PATENT OFFICE.

GUSTAF E. WALLIN, OF KANSAS CITY, MISSOURI.

MATRIX-EAR FILE.

982,554.

Specification of Letters Patent.

Patented Jan. 24, 1911.

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To all whom it may concern:

Be it known that I, GUSTAF E. WALLIN, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Matrix-Ear 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 and figures of reference marked thereon, which form a part of this specification.

My invention relates to a device for filing the ears of linotype matrices and has for its object to provide a simple and efficient device by means of which the matrix ears may be trued or simultaneously and uniformly reduced in thickness.

Matrices employed in linotype machines are formed, as shown in Figure IV of the drawings, with four ears 9', which are engaged by the channels or guides of the magazine to guide the matrices to the mold. As the matrix characters are of different widths, the matrix bodies M and ears 9' are of different thicknesses, and the corresponding channels in the machine are of different widths. Certain infrequently used characters, such for example as the asterisk and the exclamation mark, are usually kept in a box, instead of in channels of the magazine, and are picked out and inserted in place manually when they occur. This is, as I have said, the usual practice. But on certain jobs of composition, some of these ordinarily infrequently used characters have to be used with great frequency, and therefore it becomes desirable for the corresponding matrices to be run in regular channels, so that they can be set by the corresponding keys of the keyboard. In such cases it often occurs that the matrices will not enter the vacant channel or channels, owing to the channels being narrower than the matrix ears, and it has been the custom to file the ears down with an ordinary file until they are reduced to proper dimensions to pass freely through the desired channel. This operation is time-consuming, and even when skilfully performed, is not likely to reduce the ears to a uniform thickness. It is also a fact that matrices frequently become bruised or

mashed on the ear parts 9' during the operation of the machine, and such damage causes the matrices to stick in, or refuse to reënter, the channels. This trouble has heretofore been corrected by hand filing with an ordinary file.

The objects of my invention are accomplished by constructive features pointed out in the appended claims, and the preferred embodiment of the invention is illustrated in the accompanying drawings, in which:—

Fig. I is a perspective of the device with a matrix in position thereon. Fig. II is a vertical cross-section of the same. Fig. III is a central longitudinal section of the device. Fig. IV is a perspective of a matrix.

Referring more in detail to the parts:—the filing device comprises a base 1, the body of which is provided at each end with feet 2, having openings for fastening screws 3. This base is preferably made of stamped and bent sheet metal, and is so shown.

Mounted on each end of the base 1 are two spacer blocks 4, which support two parallel longitudinal bars 5, which are spaced apart the width of a matrix, and are secured to the base 1 with screws 6, passing through the blocks 4.

Two inverted screws 7 pass vertically through the base 1 adjacent to each end thereof, and support a pair of flat files 8, which extend longitudinally between the blocks 4 and are clamped between the bars 5 and said screws 7. Preferably the edge surfaces 8' of both files are smooth, so that an object may move freely thereover. The inner or adjacent edges of the files are spaced more closely than the bars 5, and thus project inwardly beyond said bars so that their upper faces present limited, parallel cutting surfaces to a matrix. When a matrix has its ears mashed or bruised, or such ears are of too great thickness, the matrix M is laid upon the files 8 as shown in Fig. I, and is moved back and forth while being pressed thereon, being guided by the inner edges of the bars 5. If the pressure is applied to the center of the matrix, all the four ears will be reduced equally as required, and trued or reduced in thickness. After being filed, sufficiently to reduce the thickness of its ears, the matrix will appear as shown in Fig. IV, wherein the filed away recesses are shown at 10. As the files are reversible and have

two cutting faces, it is evident that each of the files has four available cutting edges; and when one edge becomes worn or dull the file may be turned so as to present a
5 fresh cutting surface.

The structure shown may be modified without departing from the essential feature of the invention.

Having thus described my invention, what
10 I claim as new therein and desire to secure by Letters Patent is:—

1. A matrix filing device comprising a suitable base, files supported on said base in parallel relation, bars located above said
15 base in parallel relation and spaced from the facing edges of the files to provide guide shoulders and a channel way, substantially as set forth.

2. A matrix filing device comprising a
20 base, files mounted on said base with their facing edges parallel to each other, bars, extending longitudinally over said files with their facing edges parallel with each other and forming a channel way, and adapted for

retaining said files in position and means for 25 holding said files and bars in fixed position.

3. A matrix filing device comprising a base, having downturned end supports, blocks supported on said base and spaced
30 from each other, bars supported on said blocks and spaced from each other to provide a channel therebetween, and files located between the bars and base.

4. A matrix filing device comprising a base, having a raised center portion, parallel
35 bars supported on and raised from said base and spaced to provide a channel therebetween, files removably mounted between the bars and base and projecting into said channel, and set screws projecting through the
40 base into contact with said files, for the purpose set forth.

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

GUSTAF E. WALLIN.

Witnesses:

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