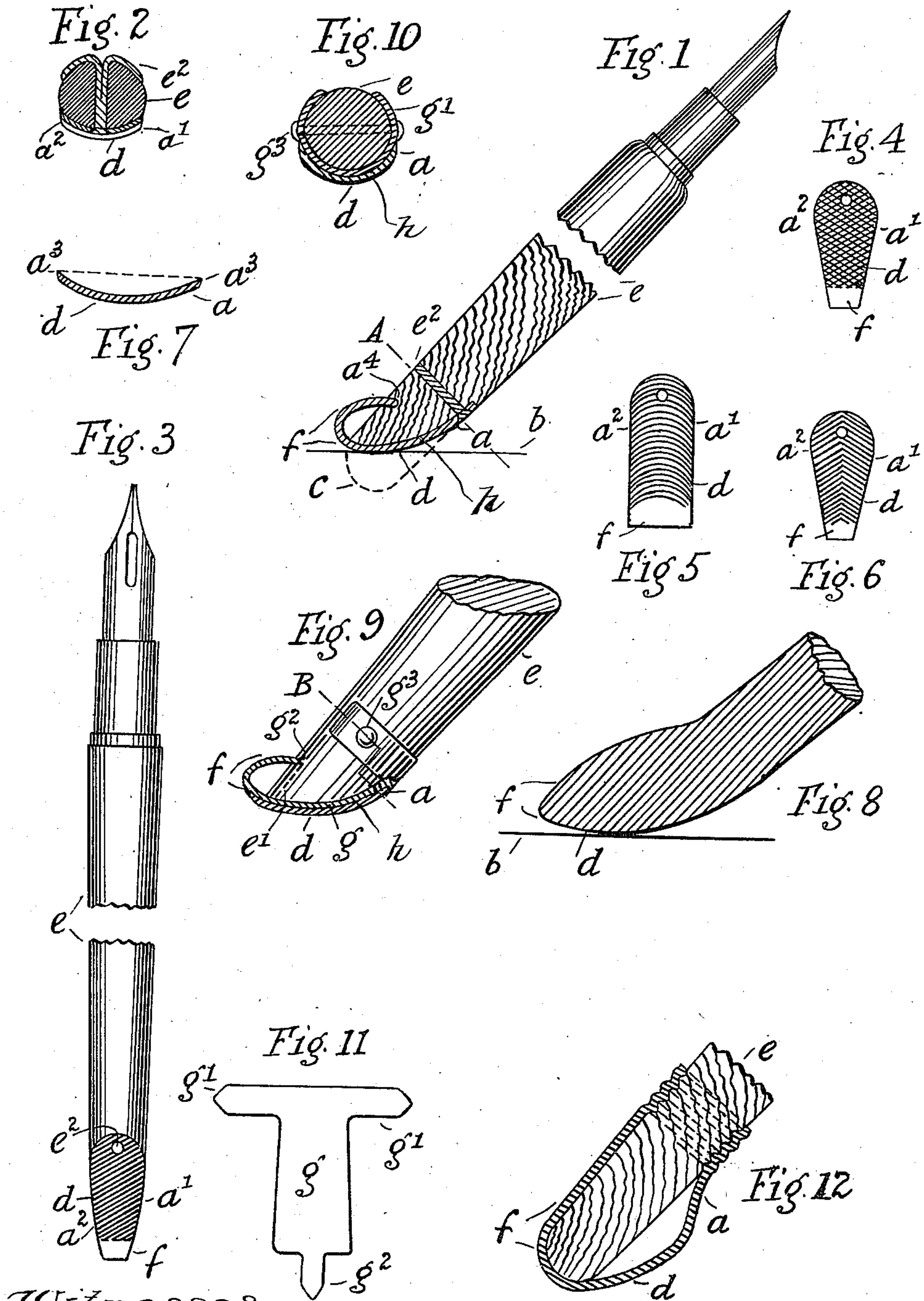


E. J. KEHOE.
 PEN HANDLE AND ATTACHMENT THEREFOR FOR ERASING AND OTHER PURPOSES.
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Witnesses
W. Williams
J. H. J. J. J.

Inventor
E. J. Kehoe
 by *J. H. J. J. J.*
 Atty.

UNITED STATES PATENT OFFICE.

EDWARD J. KEHOE, OF TUMUT, NEW SOUTH WALES, AUSTRALIA.

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989,505.

Specification of Letters Patent. Patented Apr. 11, 1911.

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To all whom it may concern:

Be it known that I, EDWARD JAMES KEHOE, a subject of the King of Great Britain and Ireland, &c., residing at Tumut, in the State of New South Wales, Commonwealth of Australia, have invented certain new and useful Improvements in Pen-Handles and in Attachments Therefor for Erasing and other Purposes; 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 appertains to make and use the same.

By my invention a pen handle can be used not only for carrying means for writing or ruling, but also very durable means for erasing, and at will burnishing.

The invention can be applied to handles of various thicknesses, lengths and materials, and according thereto the details I use will vary.

A drawback to most rubber erasers or those which wear down visibly under use, is the difficulty of keeping a projecting surface of sufficient stiffness, and yet small size to erase lines or small areas, yet leave intact other lines or marks near at hand. The more these erasers are used the blunter and less serviceable they become. Rubber or composition erasers have other defects also, one being that to remove ink or like matter from paper considerable pressure and rapidity of action are needed; yet excess of pressure is dangerous. Erasure by knife blade is often performed by preference. Steel files have been proposed and to a limited extent tried for ink erasing, but have not come into use owing to various defects. Thus plane surfaced files clog with paper too readily, and are not suitable for erasure of single lines or small or narrow areas.

The above are defects my invention remedies. I use files of steel plate or other hard material, with convex surfaces, and connect them removably or permanently, to a pen handle.

The habit of writing has accustomed persons to hold a pen handle in a manner by which they move and control the nib with a light pressure on the paper. My invention utilizes this habit, so that in order to erase the pen handle may be held as when writing; the erasing can be localized and controlled easily. The file will not clog so much as a

flat one, while matter that the teeth retain can be removed more easily.

The lines of cut in my file surface relatively to the length of the pen handle are other than longitudinal or transverse, that is are oblique, curved, or zigzagged so that better erasing effects are attained. The file surface is not set parallel to the axis of the handle, but obliquely thereto.

In the accompanying drawings, some forms embodying my invention are illustrated upon an enlarged scale, but there may be variations in the proportions and designs of parts, and omissions, or additions of details while adhering to essential features.

Figure 1 is a side view, partly in longitudinal middle section, showing ends of a pen with my attachment, and showing by dotted lines an ordinary pen handle end, the part dotted being cut away. Fig. 2 is a cross section on line A of Fig. 1; Fig. 3 is a face view of the pen ends with a file and burnisher. Fig. 4 is a face view of the file plates. Fig. 5 is a similar view of a different form of file plate. Fig. 6 is a similar view of another form of file plate. Fig. 7 is a longitudinal section of a different form of the invention. Fig. 8 is a longitudinal section of another form of the invention. Fig. 9 is a detail sectional view of another form of the invention. Fig. 10 is a detail section on the line B, of Fig. 9. Fig. 11 is a detail view of the base plate before bending. Fig. 12 is a detail longitudinal section of a modified form of the invention.

In Figs. 9 and 10 there is a base plate *g* which allows of attachment of a file member *a*, of thin metal. This is a cheap and durable combination. The base plate is shaped to fit upon its bed, *b*, on the handle *e*, and the latter is cut or shaped as by removing part *c* of Fig. 1, so that this bed is as illustrated, oblique to the handle length and allows of the file being made to contact with the paper *b*, at any desired point. It is practicable also to have an oblique file member fitted to a handle without cutting the latter, for example, member *a* is a cap screwed, in Fig. 12, to a handle *e*. The flat blank *g* has clips, arms, or tangs *g*¹, *g*², in Fig. 11, *g*¹ to be bent and form springy or other members to grasp handle *e*, while the end of part *g*² penetrates the handle and enters a groove *e*¹ in it, or abuts against it.

The construction in Figs. 9 and 10 is similar with the addition of pins or a rivet *g*³.

The file plate a may be detachable from the base plate as by having narrow or suitable edges a^3 of any suitable form to fit into recesses or sockets on said base plate. When the file plate is used without a base plate, it is held on its bed in some cases by one or more screws or pins, or a bifurcated rivet e^2 , the head of which is countersunk or non-projecting. Tip a^4 Fig. 1 of the plate enters a recess in or presses into handle e , or may abut against said handle. Hard file steel is too brittle to allow of springy clips or arms to be made integral with the body when the metal of the plate is thin.

The file surfaces are marked d and are of convex form longitudinally as in Figs. 7, 8, 9, and also transversely as in Figs. 2 and 10. The curves may be simple or compound and may differ from those illustrated. To provide the burnisher the base plate as in Fig. 9, or the file plate, Fig. 1, is of curved form so that there is an end f the surface of which is made quite smooth; the burnisher need not be narrow as shown in some figures, and it may have any shaped surface desired. The file surfaces may be more limited than illustrated, so need not extend to edges as a^1 , a^2 , of the material.

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

1. A device of the class described, comprising a handle, an abrading plate on the end of the handle which is convex longitudinally and in cross section on its outer surface and at an incline to the length of the handle, the end of said abrading plate being curved forwardly and rearwardly around the end of the handle, the outer surface of the curved portion being smooth to form a burnisher, and means for securing the abrading plate to the handle.

2. A device of the class described, comprising a handle, having its end beveled, a plate fitting against the beveled surface and provided on its under side with an abrading surface, said plate having lateral ex-

tensions which embrace the handle, and a forwardly and rearwardly bent extension the end of the latter engaging the upper surface of the handle.

3. A device of the class described, comprising a handle having a convex inclined portion at one end, said inclined portion being convex in cross section, a plate secured to the convex incline portion and corresponding to the shape thereof and provided with an abrading surface, said plate having an upwardly and rearwardly bent end which is smooth on its outer surface to form a burnisher and having its extreme end embedded in the handle, and means for securing the rear end of the plate to the handle.

4. A device of the class described, comprising a handle, having one end beveled, the beveled surface being rounded longitudinally and in cross section, a plate fitting on the beveled surface and corresponding to the shape thereof, said plate having side extensions which embrace the sides of the handle and an upwardly and rearwardly bent extension which engages the upper surface of the handle, means for securing the side extensions to the handle, an abrading plate fitted to the underside of the aforesaid plate, means for detachably securing the abrading plate in position.

5. A device of the character described, comprising a handle, a plate on one end of the handle, said plate having an extension bent upwardly and rearwardly and its end embedded in the handle, the outer surface of the bent portion being smooth to form a burnisher, said plate having grooves on its under side, means for securing the rear end of the plate to the handle, and an abrading plate fitting in the grooves.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

EDWARD J. KEHOE.

Witnesses:

GEORGE G. TURRI,
ALICE M. HOLT.