

R. L. GRISCOM.

FILE.

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1,200,189.

Patented Oct. 3, 1916.

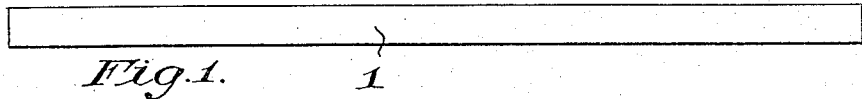


Fig. 1.

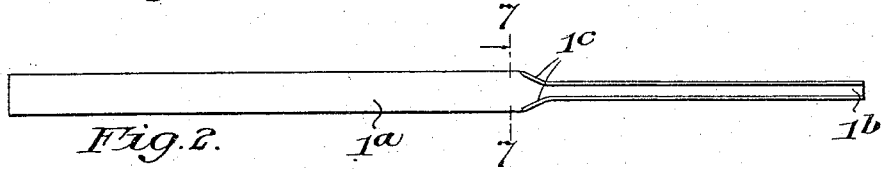


Fig. 2.

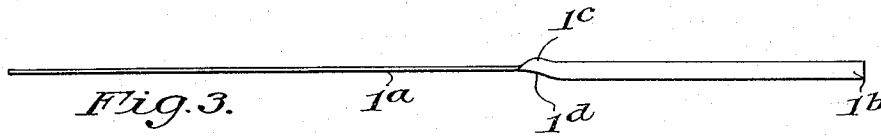


Fig. 3.

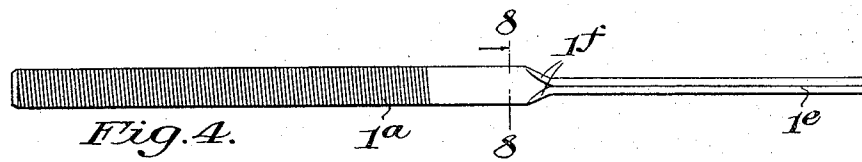


Fig. 4.

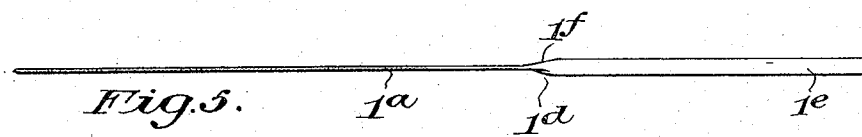


Fig. 5.

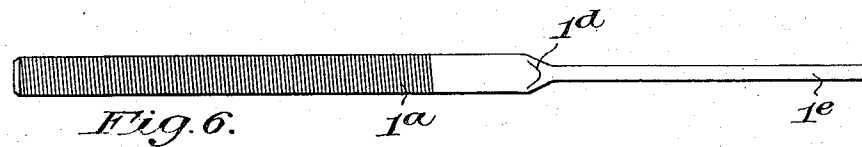


Fig. 6.

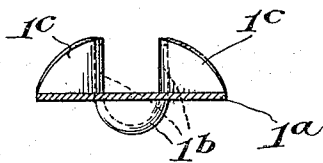


Fig. 7.

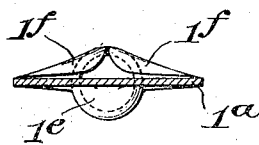


Fig. 8.

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FILE.

1,200,189.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, RAYMOND L. GRISCOM, a citizen of the United States, residing in the city of Philadelphia, county of Philadelphia, and State of Pennsylvania, have invented an Improved File, of which the following is a specification.

My invention comprises an improved product relating to small files adapted for use in finishing platinum points, spark plug points, and other small articles where comparatively fine work is required, and my leading object is to produce a convenient, simple and efficient construction at small cost.

In carrying out my invention, I prefer to proceed by, first, cutting ribbon steel of proper quality into suitable lengths; second, annealing the blanks thus formed when required; third, subjecting the blank to a dieing operation to produce a partially formed handle by bending an end section to a peculiar shape; fourth, subjecting the partially shaped blank to a further dieing operation so as to produce a finished handle of tubular form connected with a blade by a round, smooth and desirably shaped stiffening construction; fifth, cutting teeth upon the blade; and, sixth, tempering the product.

In the accompanying drawings, Figure 1 is a plan view of the blank from which my improved file is made; Fig. 2 is a plan view of the same after subsection to the first dieing operation; Fig. 3 is a side view of the product shown in Fig. 1; Fig. 4 is a plan view of the finished file after subsection to the final dieing and cutting operations; Fig. 5 is a side elevation of the construction shown in Fig. 4; Fig. 6 is a plan view of the finished file showing the side opposite that illustrated in Fig. 4; Fig. 7 is an enlarged sectional view taken on the line 7—7 of Fig. 2; and Fig. 8 is an enlarged sectional view taken on the line 8—8 of Fig. 4.

Referring to the drawings, the blank 1 is

a section of ribbon steel of the desired composition for making a file of the quality required for the work to be performed, the blank, or the ribbon from which it is cut, being annealed to provide the condition adapting it for most convenient shaping and cutting.

The blank is shaped first by a dieing operation limiting the length of the blade 1^a and producing a partially formed handle comprising the channel 1^b of U-shaped cross-section connected with the blade by the webs 1^c and 1^d, the shaping operation placing the blade in a plane dividing the partially formed handle longitudinally. The product thus formed is next subjected to a further dieing operation which bends the open channel 1^b into a closed cylindrical handle 1^e and the twisted webs 1^c into the rounded and inclined connections 1^f between the blade and the handle, the rounded parts 1^f forming diverging ribs on opposite sides of the finished product to provide the desired strength of construction properly distributed and a desirable bearing for the hand of the operator using the file. The blade is then cut in the usual manner and tempered.

This product provides a file construction having the highest degree of strength and adaptability for convenient use, being formed by operations that materially decrease the usual cost of construction.

Having described my invention, I claim:

1. A file comprising a blade, a tubular handle and rounded diverging ribs connecting said blade and handle.

2. A file comprising a blade, a tubular handle and rounded diverging ribs connecting said blade and handle, said ribs projecting beyond the opposite faces of said blade.

In testimony whereof I have hereunto set my name this 3rd day of January, 1915.

R. L. GRISCOM.