

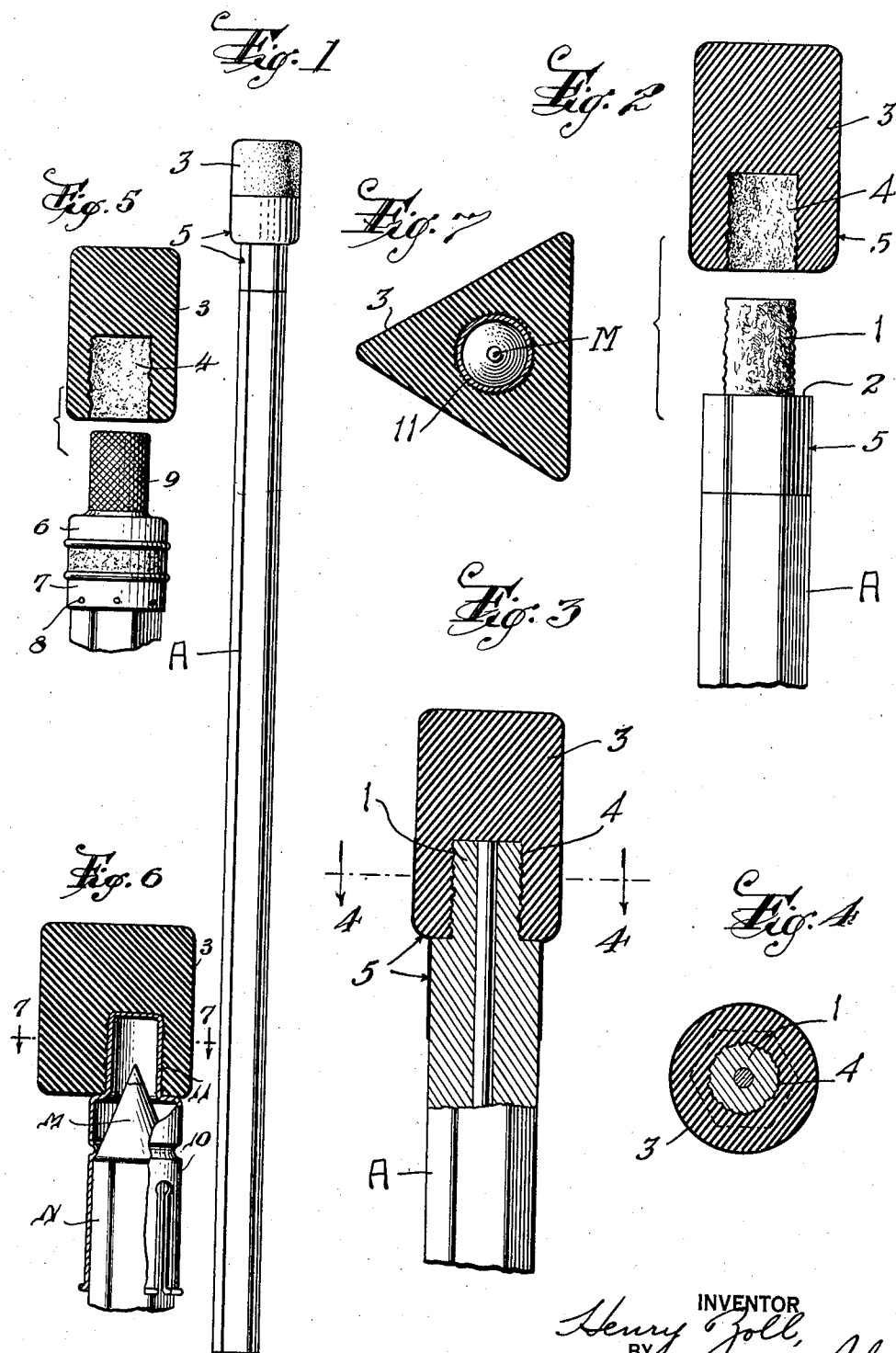
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ERASER TIPPED PENCIL

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ERASER TIPPED PENCIL

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This invention relates generally to the attachment of an eraser to a holder or handle and more particularly the invention contemplates an eraser-tipped pencil.

5 A prime object of the invention is to provide a novel and improved combination of a block of erasive material and a holder or handle such as a staff, a wood-sheathed lead pencil or the case of a mechanical pencil, whereby the combination
10 can be economically manufactured and the erasive block shall be firmly attached to the holder.

It has been proposed heretofore to attach a tip of erasive material to a pencil by molding the tip with a socket in which the end of the pencil or
15 a tenon on the pencil is fitted, for example, as shown in United States patents Reissue No. 1,319, dated June 21, 1862, and No. 38,892, dated June 16, 1863. However, the sockets in the erasive tips have been molded, which is an expensive process
20 and requires a separate mold for each different size of socket for different pencils or tenons. Furthermore, where mass or large quantity production is desired, it is necessary to utilize costly multiple cavity molds. Moreover, the walls of the
25 molded sockets are necessarily smooth and difficulty is encountered in making a secure attachment of the tips to the pencil, even with the use of glue or cement.

Another object of my invention is to provide a
30 combination of the character described wherein the socket in the erasive tip and the portion of the holder or pencil fitted in said socket shall embody novel and improved forms and cooperate in a novel and improved manner so that a secure
35 mechanical interlocking or bonding of the walls of the socket with said portion of the holder shall be provided to firmly attach the tip to the holder.

Other objects, advantages and results of the invention will appear from the following description in conjunction with the accompanying drawing in which

Figure 1 is a side elevation of an eraser tipped pencil embodying my invention.

45 Figure 2 is a composite view showing one end of the pencil in side elevation and an eraser tip in vertical section, in detached relation and on a greatly enlarged scale.

Figure 3 is a similar view showing the erasive tip fitted on the end of the pencil.

50 Figure 4 is a horizontal sectional view on the line 4—4 of Figure 3,

Figure 5 is a view similar to Figure 2 showing a modification of the invention.

55 Figure 6 is a view similar to Figure 3 showing

the invention embodied in a combined pencil point protector and eraser holder, and

Figure 7 is a horizontal sectional view on the line 7—7 of Figure 6.

Specifically describing the invention, the reference character A designates a staff, a shaft or rod of suitable material, which may be a wooden sheathed lead pencil or the casing of a mechanical pencil. At one end, the staff has a cylindrical reduced portion 1 which forms a shoulder 2 between the reduced portion and the main portion of the staff.

Mounted on one end of the staff is an erasive tip 3 which is in the form of a cylindrical or other suitably shaped block of elastic erasive material such as is commonly used on lead pencils. As shown, one end of the erasive block 3 has a socket 4 which frictionally receives and fits over a reduced portion 1 of the staff A with one end of the block 3 abutting the shoulder 2. The tip 3 may be securely held on the reduced portion 1 by frictional engagement of the elastic erasive material with the surface of the reduced portion, and if desired, a glue or cement may be applied between the surfaces of the walls of the socket 4 and the surfaces of the portion 1.

In accordance with the invention the walls of the socket 4 are finely serrated to provide a secure frictional grip on the reduced portion 1 of the staff, and also the peripheral surface of the portion 1 is finely serrated. The serrated surfaces of the walls of the socket 4 are preferably formed by drilling the socket 4 in the block of erasive material 3, while the serrations of the surface of the portion 1 of the staff may be formed as by a wood or metal turning operation.

Due to the elastic properties of the erasive material, the surfaces of the walls of the socket 4 will be irregularly serrated and torn, as distinguished from the smooth walls that are formed by molding sockets in erasive tips.

Similarly, especially when the staff A is of wood or like fibrous material, the surface of the reduced portion 1 will be irregularly serrated and torn.

Therefore, when the reduced portion 1 of the staff is inserted into the socket 4, the serrations of the surfaces of the walls of the sockets and of the surfaces of the portions 1 will interlock, as shown in Figures 3 and 4, and be held firmly interlocked by the elastic properties of the erasive block 3 so that the erasive block will be firmly mounted on the staff against accidental displacement, but preferably removable therefrom by forcible pulling of the tip longitudinally of the

staff to permit interchange or renewal of the erasive tips.

My invention makes it possible to produce the erasive block B by an extrusion process so that the erasive material may be extruded in a continuous rod-like form, of any desired cross-sectional shape, then severed into blocks of the desired length, after which the sockets 4 may be drilled in the blocks. This method of producing the erasive blocks overcomes the disadvantages of the old methods of forming erasive tips by molding. The necessity for many different molds for different sizes of sockets 4 to fit different sizes of staffs or reduced portions 1 on the holder, is completely eliminated; any desired diameter of socket 4 may be provided in any block 3 by utilizing a drill of the proper diameter. Accordingly, my invention makes it possible to produce erasive tips of the general character described rapidly and economically.

Obviously, the erasive blocks may be of different sizes and shapes, as desired.

In Figure 5 I have shown the staff of the holder in the form of a ferrule or cap 6 of metal or other suitable material fixedly attached to one end of the pencil casing L. The cap 6 has a socketed base portion 7 to fit over the end of the pencil casing and prick-punched or otherwise interlocked with the casing as at 8. From one end of the base portion 7, integrally projects a reduced spindle 9 corresponding to the tenon or reduced portion 1, and preferably the surface of this spindle is serrated or knurled to interlock with the serrated walls of the socket 4 of the erasive tip which is frictionally fitted on the spindle.

Figure 6 illustrates the staff of the holder in the form of a point-protecting cap 10 removably frictionally fitted over the pointed end M of the pencil N, and also adapted to be interchangeably removably fitted on the other end of the pencil during use of the pointed end in writing. The cap 10 has a reduced spindle 11 similar to the spindle 9 on which the erasive tip 3 is frictionally fitted. Here the tip is shown as triangular in shape.

Various modifications and changes in the details of structure of the combined pencil and erasive tip will occur to those skilled in the art as within the scope of the invention.

Having thus described my invention, what I claim is:

1. An article of manufacture comprising a block of elastic erasive material having a cylindrical drilled socket the surfaces of the walls of which have been roughened and torn by the drilling operation, and a staff having a roughened cylindrical surface tightly frictionally fitted into said socket, whereby the block is firmly held on said staff by the interlocking of said roughened surfaces under the influence of the elasticity of said block.

2. As a new article of manufacture, an erasive tip for a pencil comprising an elastic block of erasive material having a drilled socket to frictionally fit over the end of a pencil, the surfaces of the walls of said socket being in the irregularly roughened and torn condition resultant of the drilling operation.

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