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H. K. STEMPEL
WRITING INSTRUMENT
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2,180,560

Fig. 1.

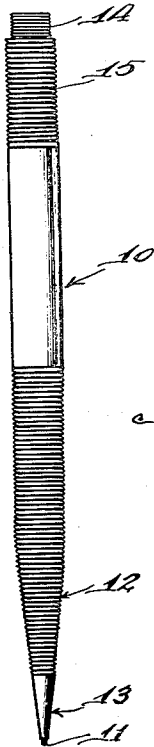


Fig. 2.

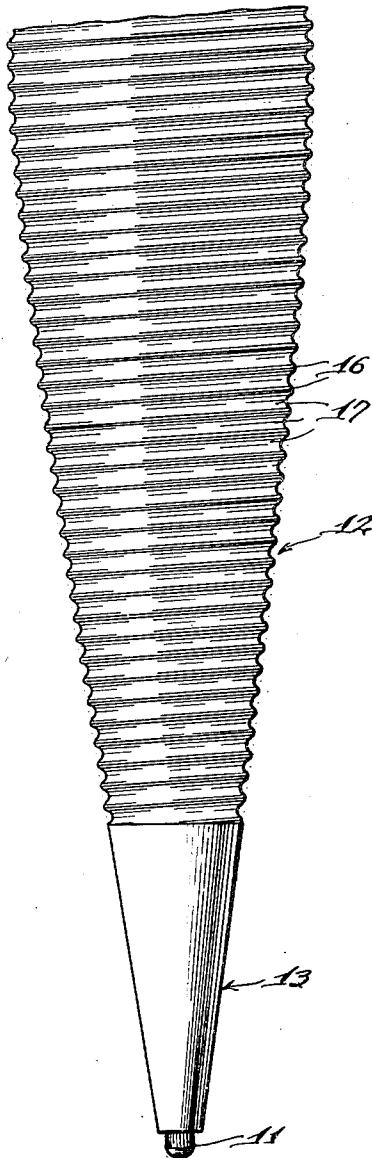
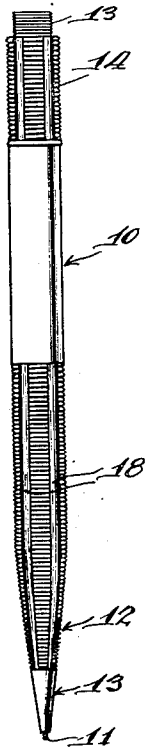


Fig. 3.



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WRITING INSTRUMENT

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2 Claims. (Cl. 120—9)

This invention relates to a writing instrument and has special reference to a holder for housing a marking medium, the holder having a gripping portion for facilitating the handling thereof in use.

More particularly, this invention relates to a writing instrument comprising a barrel for housing a marking medium the barrel having a tapered gripping portion at one end thereof from which the marking medium extends and the tapered gripping portion having alternate ridges and grooves on the external surface thereof.

It would be desirable, if possible, to continuously and automatically rotate a wearable marking medium in the act of writing so as to present a minimum contact area between the marking medium and the writing surface in order to maintain a thin line. Were the writing instrument held at the same angle of inclination and without movement about its axis in ordinary writing, the marking medium which, for example, may be the lead of a pencil, would become worn on one spot. A continued use in this manner may enlarge the spot to a diameter even greater than that of the lead and the mark made on the writing surface would become so thick as to eventually become almost illegible.

In writing with a lead pencil, in order to preserve a thin line it is necessary to either change the angle of inclination of the holder of the pencil or to rotate the holder about its axis, or both, continuously in writing, so that due to wear no flat spot of substantial size occurs on the lead.

The present invention has for one of its objects the provision of alternate ridges and grooves over the tapered gripping portion at the end of the barrel or holder from which the marking medium extends so as to afford a tendency for the barrel or holder to rotate in the hand as the usual pressure from the hand is imparted to the pencil in writing so as to preserve a thin line. The alternate ridges and grooves tend to rotate the holder or barrel about its axis as pressure is applied longitudinally thereof by the hand to bear on the lead or other marking medium in transferring the marking medium to a writing surface through wear or friction.

The provision of alternate ridges and grooves also affords a grip on the holder or barrel of the writing instrument to prevent slippage of the hand downwardly thereon when pressure is applied longitudinally thereof for writing. Thus, the means for preventing the holder or barrel from slipping in the hand also tends to impart rotative

movement to the holder of the writing instrument and such tendency is substantially facilitated in the provision of spirally extending alternate ridges and grooves at or about the tapered gripping portion or adjacent thereto.

The provision of alternate ridges and grooves on the external surface of the tapered gripping portion also provides air spaces in the grooves over that portion where it is most desirable so as to cool and thus minimize the accumulation of moisture on that portion of the fingers of the hand at which the writing instrument is held and thereby further to facilitate the gripping of the writing instrument during substantial continued use.

One of the objects of this invention is to provide a writing instrument of the character indicated above in which the holder or barrel has a tapered gripping portion at the end from which the marking medium extends, the tapered gripping portion having alternate ridges and grooves on the external surface thereof to provide air spaces for cooling and to provide means for preventing slipping of the fingers over the barrel or holder during use in writing.

Another object of this invention is to provide a writing instrument of the type hereinabove mentioned in which the tapered gripping portion at the end of the writing instrument from which the marking medium extends is provided with a spirally extending tapered portion having a tendency to rotate the writing instrument in the hand when writing as the usual pressure from the hand is imparted to the pencil so as to maintain a thin line on the writing surface by keeping the point of the marking medium sharp.

It is also an object of this invention to provide a writing instrument of the type noted above which is comparatively inexpensive to manufacture and is efficient in operation.

Other objects and advantages of this invention will hereinafter be more particularly pointed out and for a more complete understanding of the characteristic features of this invention, reference may now be had to the following description when taken together with the accompanying drawing, in which latter:

Figure 1 is a front elevational view of a writing instrument incorporating the features of this invention;

Fig. 2 is a fragmentary elevational view on a greatly enlarged scale of the writing end portion of the writing instrument shown in Fig. 1; and

Fig. 3 is a view similar to Fig. 1 of a modified

form of construction incorporating the features of this invention.

Referring now to the drawing and more particularly to Figs. 1 and 2 thereof, the writing instrument embodying the features of this invention comprises a holder or barrel 10 formed of rubber, composition material, metal or the like of substantial rigidity for housing the marking medium 11, the barrel or holder 10 having a tapered gripping portion 12 at the writing point end thereof adjacent a tip 13 which latter is preferably formed of metal and through which the marking medium extends. The opposite end of the barrel or holder may be provided with an eraser 14 extending from an eraser housing 15.

The tapered gripping portion 12 is provided with a series of alternate ridges and grooves 16 and 17, respectively, which may extend upwardly from the tapered gripping portion over at least a portion of the barrel or holder 10. The alternate ridges and grooves 16 and 17 are shown as extending spirally which has been found to be preferable although, of course, the alternate ridges and grooves may be formed in the manner of rings which latter, in some instances, may be desirable. However, as illustrated in the drawing, in actual practice the tool for cutting the alternate ridges and grooves is spirally fed along the barrel, the tool having a cutting edge of substantially V-shape and this as above stated affords a preferable and most desirable form.

Referring now more particularly to Fig. 3, after the spiral groove has been cut into the bar-

rel it may be desirable to cut longitudinally extending grooves 18 in the barrel so as to interrupt the spirally extending alternate ridges and grooves. The longitudinally extending grooves 18 may be continuous over that portion of the barrel or holder in which the spirally extending alternate ridges and grooves are cut or may be staggered or formed as desired.

While but two embodiments of this invention are herein shown and described, it is to be understood that various modifications thereof may be apparent to those skilled in the art without departing from the spirit and scope of this invention and, therefore, the same is only to be limited by the scope of the prior art and the appended claims.

I claim:

1. A writing instrument comprising a barrel for housing a marking medium, said barrel having a rigid and tapered gripping portion at one end thereof from which the marking medium extends, said tapered gripping portion having spirally extending alternate ridges and grooves on the external surface thereof.

2. A writing instrument comprising a barrel for housing a marking medium, said barrel having a rigid and tapered gripping portion at one end thereof from which the marking medium extends, said tapered gripping portion and at least a portion of said barrel having continuous spirally extending alternate ridges and grooves on the external surfaces thereof.

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