Oct. 31, 1950 W. W. MORU 2,528,385

LUMBER PENCIL

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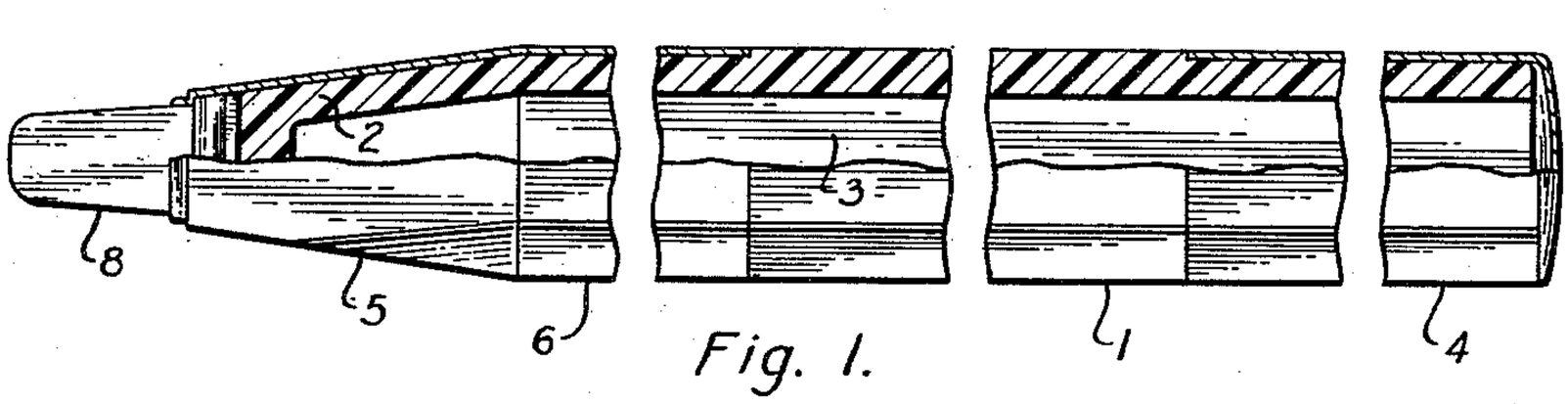

Fig. 1.

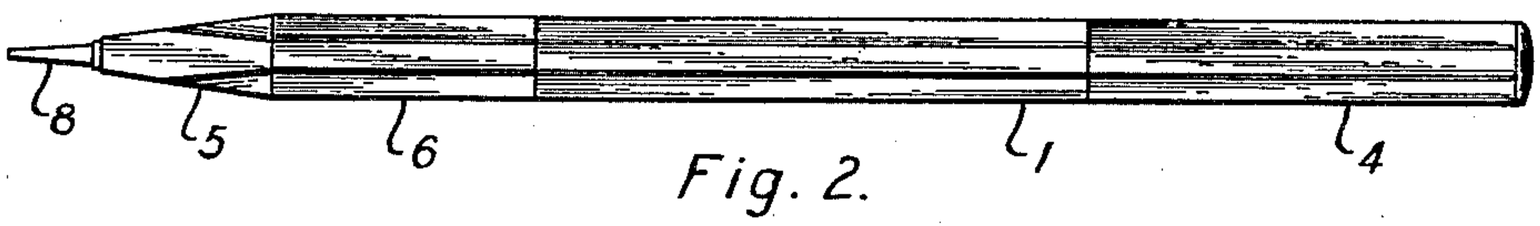

Fig. 2.

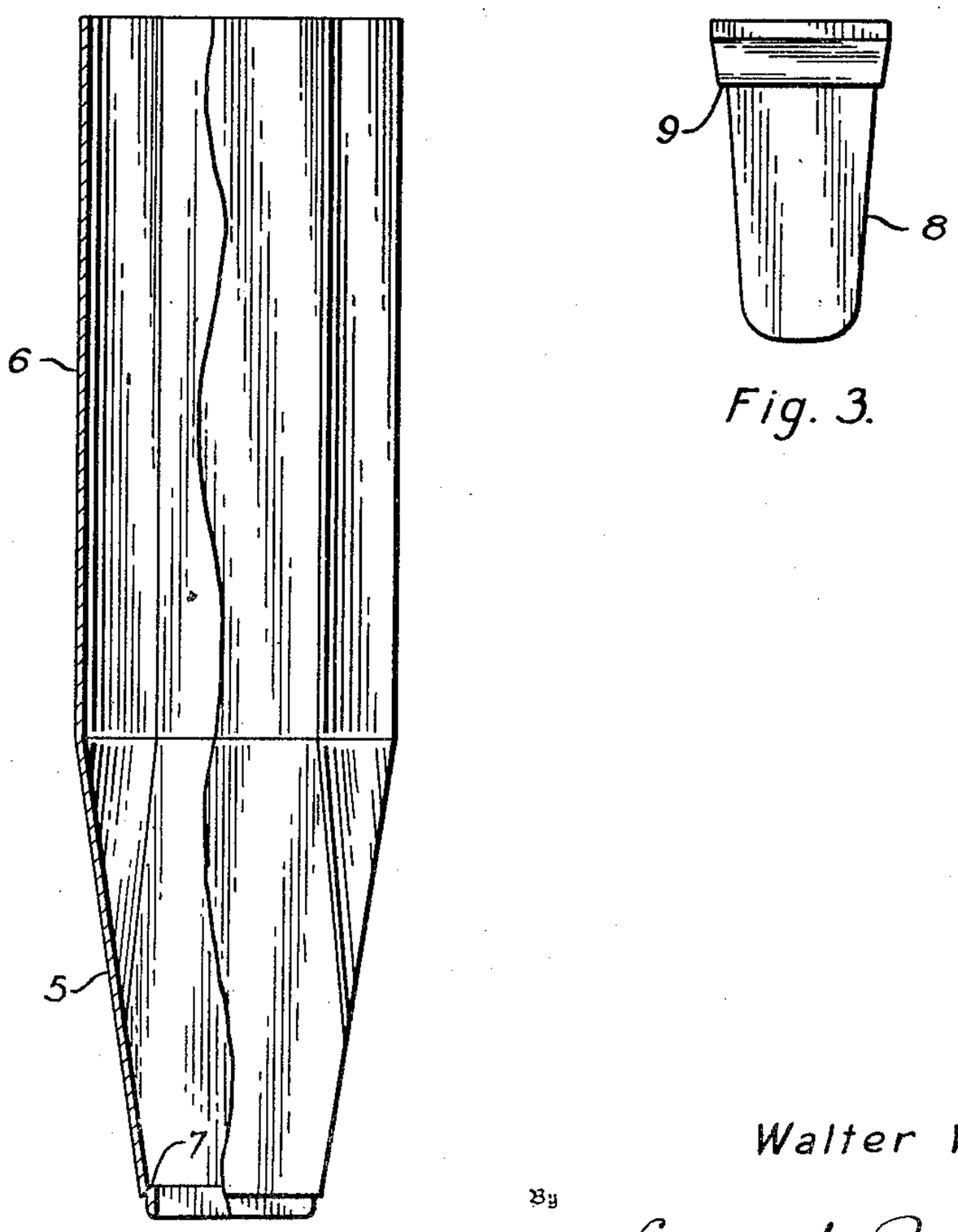

Fig. 3.

Fig. 4.

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LUMBER PENCIL

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3 Claims. (Cl. 120—83)

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My invention relates to a pencil and more particularly to a pencil having replaceable lead which is especially suitable for use by carpenters, construction workers and others who work with lumber, or other common building materials.

At the present time, lumber pencils of substantially oval or octagonal cross section are available which are expendable and have fixed, non-renewable centers of rectangular-shaped lead or graphite. For use as a lumber pencil, the point must be quite thin, so that the lines it draws are thin. At the same time, the point must be relatively very wide in order that it may have sufficient strength to withstand the shock of encountering bumps and irregularities in the material to be scribed. In order to obtain thin lead, anyone using lumber pencils must sharpen them by rubbing the flat sides of the lead on an abrasive surface or reducing by other means until the desired thickness is obtained. This is a time consuming process, when carefully done, as is necessary in order to obtain fully satisfactory results.

As a conventional lumber pencil is used, successive sharpenings reduce its length and when it is about half its original length, it has become too short to be readily removed from the pocket, usually provided for this purpose, of the overalls or other clothing being worn by tradesmen. For this reason, ordinary lumber pencils are often discarded when they have been reduced to about half their original length. This of course represents a waste of half the value of the pencil. Moreover, an excessive bending strain renders a considerable portion of the pencil unuseable, though giving no outward indication of breakage or defect.

One object of my invention is to provide a lumber pencil which is more economical in the long run than ordinary lumber pencils.

Another object is to provide preformed points for a mechanical lumber pencil, no sharpening of which is necessary, and which will consequently save considerable time.

A further object of my invention is to provide a lumber pencil the length of which always remains practically constant, so that it is always of a handy size, readily available from the pockets of the user.

The foregoing and other objects, features and advantages of my invention will be apparent from the following description and from the accompanying drawings of a preferred embodiment, it being understood that the detailed description and drawings are merely illustrative of the invention, which is defined in the claims.

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In the drawings,

Figure 1 is a plan view, partly broken away and partly in section, of an assembled pencil constructed in accordance with my invention.

Figure 2 is a front elevation of the pencil illustrated in plan in Figure 1.

Figure 3 is an enlarged plan view of a graphite or lead point designed for use with a pencil made in accordance with my invention.

Figure 4 is an enlarged plan view, partly in longitudinal section, of a shell or sleeve designed to hold the lead point in place on the pencil.

Like reference numerals refer to like parts throughout the several figures of the drawings.

According to my invention, a body or handle 1 for the pencil is made several inches long and relatively wide and thin in cross section. In cross section, its shape may be that of a flattish oval or of a flat polyhedron, the handle illustrated in the drawings being octagonal. The handle may be constructed of any suitable material, such as wood or metal, but I prefer to form it of a molded thermoplastic. At one end, the handle is tapered down into the shape of a truncated wedge 2, for a purpose to be described hereinafter. At the other end, the handle has an axially disposed recess or cavity 3 formed in it for the purpose of holding spare lead points. This cavity, or magazine, is preferably rectangular in shape and extends substantially throughout the whole length of the pencil, terminating near the end of the truncated wedge 2. A shell-like cap 4, preferably of metal, such as thin gauge stainless steel, is formed in the same shape as the cross section of the handle 1 which is recessed slightly to receive it so that the cap will fit snugly in telescoping relation over the larger end of the handle, thereby closing the opening of the cavity 3.

A shell or sleeve 5, also preferably of thin metal, such as stainless steel, is formed in the same shape as the smaller end of the handle 1, which is recessed slightly to receive it, so that it fits in telescoping relationship tightly over the truncated wedge 2 and the adjacent end of the main body of the handle. The sleeve has parallel sides 6 at its larger end, from which it tapers down, conforming to the shape of the truncated wedge 2, to a point at which it is formed with an inwardly extending shoulder 7, from which it resumes a tapered shape for a short space between the shoulder and its smallest end.

A pencil point 8 is preferably formed of molded graphite otherwise known as black lead, in a tapered, wedgelike shape. To meet the requirements of a lumber pencil, this point is relatively

thin and wide in cross section, so that it will be capable of drawing a thin line and at the same time will have sufficient strength to withstand the shock of hitting bumps and other irregularities in the lumber. Since the point 8 is formed in this shape, it does not require any sharpening, but is ready to use as soon as it is inserted in the pencil. The point 8 is flared out slightly from its smaller end up to a shoulder 9 projecting outwardly and encircling its larger end. The shoulder 9 projects outwardly an amount substantially the same as the inset of the inwardly extending shoulder 7 of the sleeve 5. The point then continues to flare outwardly at an angle and with a dimension substantially equal to those of the flare of the sleeve 5 from its shoulder 7 toward its parallel sides 6.

In use, one of the points 8 is inserted through the larger end 6 of the sleeve 5 until its point extends outwardly through the smaller end of the sleeve and its shoulder 9 comes into contact with the shoulder 7 of the sleeve. The sleeve or shell 5 is then placed over the truncated wedge end 2 of the handle 1 and is pushed onto the handle as far as it will go, thereby firmly securing the sleeve onto the handle and holding the point 8 in firmly fixed relationship to the handle. It will be appreciated that the point 8 may be held in place either by contact of its shoulder 9 with the shoulder 7 of the sleeve, or by the taper of the sleeve contacting the taper at the larger end of the point. Either means will be quite adequate to hold the point firmly in position, although I prefer to use both at the same time. The point 8 will be held by the sleeve 5 substantially in engagement with the end of the truncated wedge 2 of the handle 1.

It is of course possible to use with the pencil points made of various hardnesses of lead, giving the pencil an adaptability for various uses not present in an ordinary lumber pencil. The length of the pencil does not vary appreciably, so that it is always of a handy length and is readily available from the pocket of the user, a factor of considerable importance with a device used by construction workers. It is economical of material as compared with an ordinary lumber pencil, in that the ordinary lumber pencil is usually discarded when it has been sharpened to about half its original length. Furthermore, an appreciable amount of lead is wasted in sharpening the ordinary lumber pencil. Of still greater importance is the time saved since a pencil made in the manner of my invention does not require sharpening. This is of especial significance when a worker has need to renew the point of the pencil and finds himself temporarily without means to do so. With a pencil made as described herein, when a new point is needed, all the user needs to do is to remove the shell or sleeve 5, discard the stub end of the old point, then insert a new point and replace the sleeve on the handle. This results in a considerable saving in time and is very convenient.

I claim:

1. A pencil comprising a body tapered at one end to a truncated wedge closed at its smaller end, a tapering sleeve adapted to fit snugly over said wedge, and a tapered, wedge-shaped graphite point abutting against said closed end of the truncated wedge of said body, the tapering sides of said point being engaged by the tapering walls of said sleeve to hold said point against said closed end in firmly fixed relationship to said body.

2. A pencil comprising a handle tapering at one end to a truncated wedge closed at its smaller end, a tapering shell fitting snugly over said wedge and having an inwardly extending shoulder near its smaller end, and a tapered, wedge-like lead point having its larger end in contact with said closed end of the truncated wedge of said handle and having a projecting shoulder encircling its larger end, the shoulder and tapering sides of said point being engaged by the shoulder and tapering walls of said shell to hold said point firmly in engagement with said closed end of said handle.

3. A pencil comprising a handle tapering at one end to a truncated wedge closed at its smaller end, said handle having a cavity extending axially from its larger end, a cap fitting snugly over the larger end of said handle to close said cavity, a tapering shell fitting snugly over said wedge and having an inwardly extending shoulder near its smaller end, and a tapered, wedgelike lead point having its larger end in contact with said closed end of the truncated wedge of said handle and having a projecting shoulder encircling its larger end, the shoulder and tapering sides of said point being engaged by the shoulder and tapering walls of said shell to hold said point firmly in engagement with said closed end of said handle.

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