

C. A. GAISER.

LEAD.

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1,027,381.

Patented May 21, 1912.

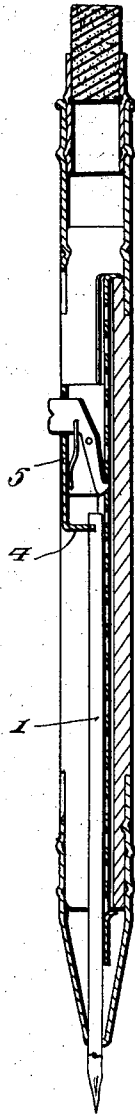


Fig. 1.

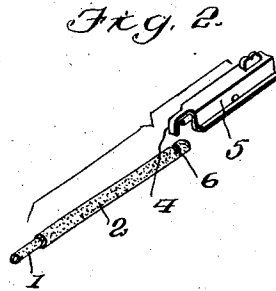


Fig. 2.

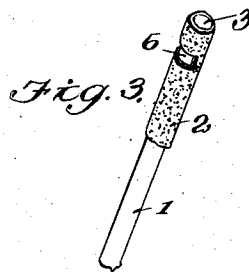


Fig. 3.

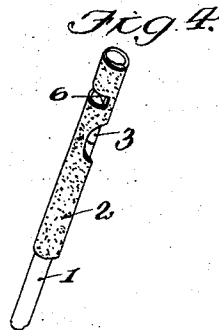


Fig. 4.

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UNITED STATES PATENT OFFICE.

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LEAD.

1,027,381.

Specification of Letters Patent.

Patented May 21, 1912.

Original application filed April 14, 1910, Serial No. 555,384. Divided and this application filed September 13, 1910. Serial No. 581,881.

To all whom it may concern:

Be it known that I, CHARLES A. GAISER, citizen of the United States, residing at Toledo, in the county of Lucas and State of Ohio, have invented certain new and useful Improvements in Leads, of which the following is a specification.

This invention comprehends certain new and useful improvements in leads for use in pencil cases such as are known as automatic pencils, and the invention has for its object an improved lead which will effect economies in the trade.

As is well known, the supply of cedar, which is recognized as the best wood for lead pencils, is rapidly becoming exhausted, the wood being used up faster than it is supplied by nature, and consequently various attempts have heretofore been made to provide lead holders of the automatic type wherein the lead may be retracted when not in use into the holder or barrel and projected therefrom when desired for writing purposes. One of the causes of the rapid decrease of the cedar supply is the waste incidental to the fact that the ordinary lead pencils are thrown away with at least one-fifth part unused, as the stub becomes too short for convenient handling. A corresponding objection is open to automatic holders heretofore provided, in that no provision is made for using the entire lead, a portion of the lead of necessity being thrown away when it becomes so short that it cannot be held by the barrel or case, and my invention, therefore has for its object, an improved construction and arrangement of lead whereby the lead may be entirely used up and no portion thereof thrown away.

My invention also aims to effectually protect the lead from becoming broken, and thus incapable of being used in the holder, which is another disadvantage incidental to lead holders heretofore ordinarily made, owing to the brittleness of the leads and their liability to become broken. It is well known that this feature is an objection, making the use of the ordinary automatic lead-holders impracticable, because, if the lead is broken, the work of readjusting, re-pointing, and using up pieces separately is no less than that required in the ordinary pencil through the necessity of removing and shaping the wood to expose the lead

and pointing the latter, so as to render it suitable for use.

In short, then, it is the aim of my present invention to cure the difficulties hereinbefore recited, as incidental to the so-called automatic pencils, by remedying the objectionable features of the movable lead and thereby making the use of the holders a continuous one and preferable to the ordinary lead pencils as well as the automatic pencils as heretofore supplied by the trade, and more economical, convenient and simple.

To this end, the invention consists essentially in means for preventing the breaking of the leads whereby the continued use of the leads to the blunt end thereof is possible, without waste, readjustment, or other attention except repointing.

For a full understanding of the invention, reference is to be had to the following description and accompanying drawing in which:

Figure 1 is a longitudinal sectional view of a lead holder forming the subject matter of my co-pending application, Serial No. 555,384, filed April 14, 1910, of which this is a divisional application. Fig. 2 is a perspective view illustrating the lead carrier and one form of lead in juxtaposition thereto; and Figs. 3 and 4 are perspective views of the lead.

Corresponding and like parts are referred to in the following description and indicated in all the views of the accompanying drawings by the same reference characters.

The lead is wrapped with any suitable substance 2, such as a fibrous paper tube of predetermined texture and thickness. The tubular sheathing thus formed is continued a predetermined distance beyond the stub end of the lead, the extension of the tubular sheet of paper or the like containing a plug 3 of wood or any other substance designed to be directly engaged by the hook 4 of the lead carrier 5. In order that it may be so engaged, a recess 6 is formed in the covered lead, the recess extending either entirely or partially around the same, the recess extending into the plug and the hook 4 being entered therein, as clearly illustrated in the drawing. It will thus be manifest that the lead will be effectually prevented from breakage by falling or careless handling, the paper or the like being cemented to the lead, and the covering or sheathing because of its

tubular shape adding sufficient stiffness and strength to protect the lead against the ordinary causes of breakage. While it is true that the lead within the sheathing might possibly become broken, yet the wrapping or covering may still be intact thereby holding together the separated parts of lead and maintaining them in place until used up to the stub or butt end. As it is not intended that a lead so covered be used independently of a holder, it is clear that the wrapping need be but thin, varying, however, with the material used for the wrapping and the size of the lead and the purpose for which the lead is to be used. Hence, as above indicated, thin wrapping paper of the proper quality and fiber wound around the lead a few times and properly fastened thereto will suffice for the purpose. To make the wrapping thicker, than above stated, would not only add nothing to the usefulness of the device, but would defeat one of the objects aimed at, because requiring a larger holder, and thereby resulting in clumsiness, additional weight and cost, and extra work in pointing the lead.

Another advantage of the invention, it will be noted that the relatively soft surface of the sheathing or wrapping will afford the lead carrier a much better hold on the lead than would be provided by the hard and smooth surface of the uncovered natural lead, and it will also be seen that by the provisions of the plug 3 and the extension of

the sheathing or wrapper, the lead may be entirely used up and no portion thereof wasted.

Having thus described the invention, what is claimed as new is:

1. As a new article of manufacture, a lead for automatic pencils, the same being of an integral formation and provided with a single wrapping adhesively connected thereto and extending beyond the lead at the butt end thereof to form a tubular extension and a plug of uniform diameter throughout and of a diameter equal to the diameter of the lead, immovably and permanently held in said extension and completely filling the same.

2. As a new article of manufacture, a lead for automatic pencils provided with a fibrous wrapping adhesively connected thereto, and extending beyond the lead at the butt end thereof to form a tubular extension and a plug adhesively and permanently held in the tubular extension and of a diameter uniform from end to end and equal to the diameter of the lead, the extension and plug being formed at one point with an opening extending through the extension into the plug for the purpose specified.

In testimony whereof, I affix my signature in presence of two witnesses.

CHARLES A. GAISER. [L. s.]

Witnesses:

WM. J. SCHROEDER,
EMMA SCHMIDT.