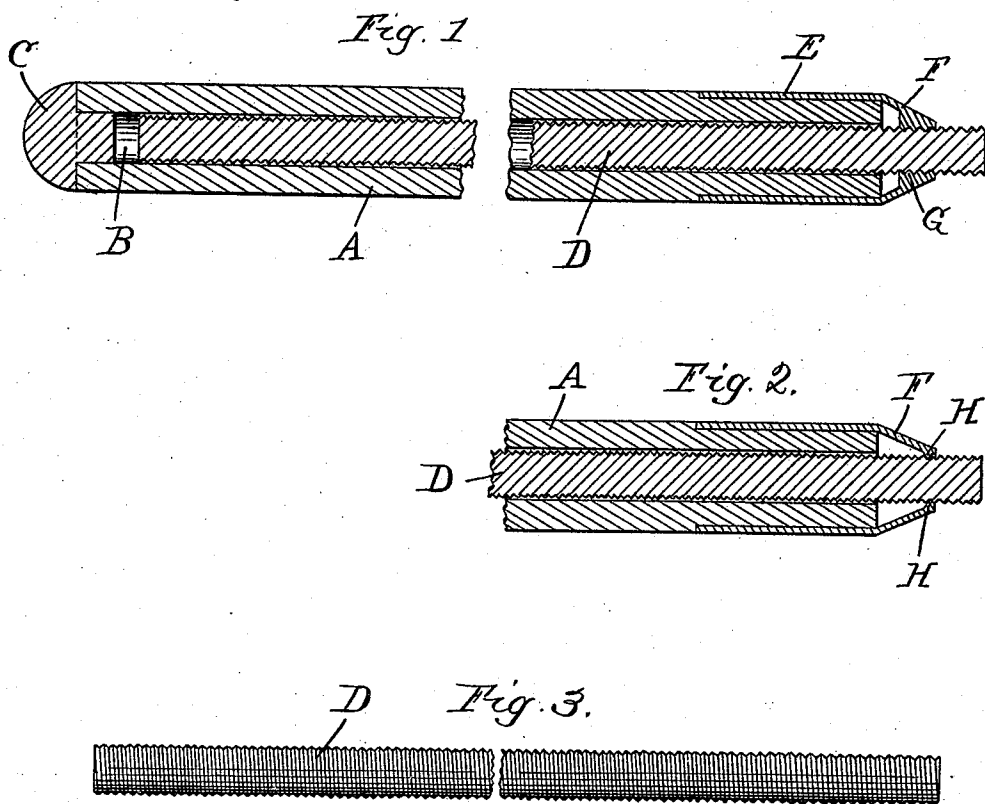


(No Model.)

F. W. MUSSON.
MECHANICAL LEAD PENCIL.

No. 574,359.

Patented Dec. 29, 1896.



Witnesses.

B. S. Turner,
Donald McArthur

Inventor.
Frederick W. Musson,
by Francis W. Parker,
his Atty.

UNITED STATES PATENT OFFICE.

FREDERICK W. MUSSON, OF CHICAGO, ILLINOIS.

MECHANICAL LEAD-PENCIL.

SPECIFICATION forming part of Letters Patent No. 574,359, dated December 29, 1896.

Application filed April 6, 1896. Serial No. 586,422. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK W. MUSSON, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Pencils, of which the following is a specification.

My invention relates to automatic or mechanical lead-pencils, and has for its object to provide means whereby the movable lead of an automatic lead-pencil may be controlled.

My invention relates particularly and more especially to lead-pencils of large size and unusual length, such, for example, as are employed in lumber-yards or the like for marking lumber, and to pencils where graphite, crayon, paint, oil, or the like are used for marking or writing.

The particular form of my invention which I here describe as showing the principle of my invention is illustrated in the accompanying drawings, wherein—

Figure 1 is a longitudinal section through a pencil. Fig. 2 is a similar section through a part modified. Fig. 3 is a view of the threaded lead.

Like parts are indicated by the same letters in all the figures.

A is the body of the pencil, which may preferably be composed of wood and which is provided with a central longitudinal aperture B.

C is the removable head, cap, or cover.

D is the lead, screw-threaded throughout its length. It may be of any desired shape in cross-section, but I prefer it round.

E is the tip of the pencil, which is preferably composed of a metal cylinder adapted to be fitted snugly on the end of the body A, so as to rotate thereon and so as not easily to slide therefrom. It has a forwardly-projecting portion F coming down toward a point, through which the end of the threaded lead projects. This point portion has an internal screw-threaded part G to engage the screw-thread of the lead, or it may have one or more inwardly-projecting points H, which engage the threads of the lead.

The aperture in the pencil-body is such as preferably to make a comparatively snug fit for the pencil.

The use and operation of the invention are evident from what has already been described. The lead is introduced from the free end, the cap being first removed, and the end of the lead is projected out through the tip portion, its thread being engaged by the threads on the part G or by the points H H. Now by turning the part E it is plain that the lead will reciprocate unless it rotates; but its weight is such and the snugness of the fit is such that it will not rotate, but will reciprocate. Of course the threads on the part G or the points H H fit in the screw-thread of the lead quite freely, so as to reduce the tendency of the lead to rotate.

The lead can be introduced from either end or can be inserted in the controlling mechanism and then this mechanism be brought into place, the lead being run up into the aperture.

This is one of three applications made at the same time, which are designed together to cover the whole of my present invention.

When I speak of "lead-pencils" I do not mean to confine myself to the use of graphite, but any and all such writing devices I include in that term.

What I claim as new, and desire to secure by Letters Patent, is—

An automatic lead-pencil consisting of a body having a longitudinal aperture, a lead screw-threaded throughout its length, and of such size as to snugly fit and make a holding frictional engagement with the walls of the aperture, and a device engaging the threads of the lead and rotatably mounted on the body so as when rotated to reciprocate the lead along the body.

Signed at Chicago, Illinois, April 4, A. D. 1896.

FREDERICK W. MUSSON.

Witnesses:

BERTHA C. SIMS,
L. W. JOHNSTONES.