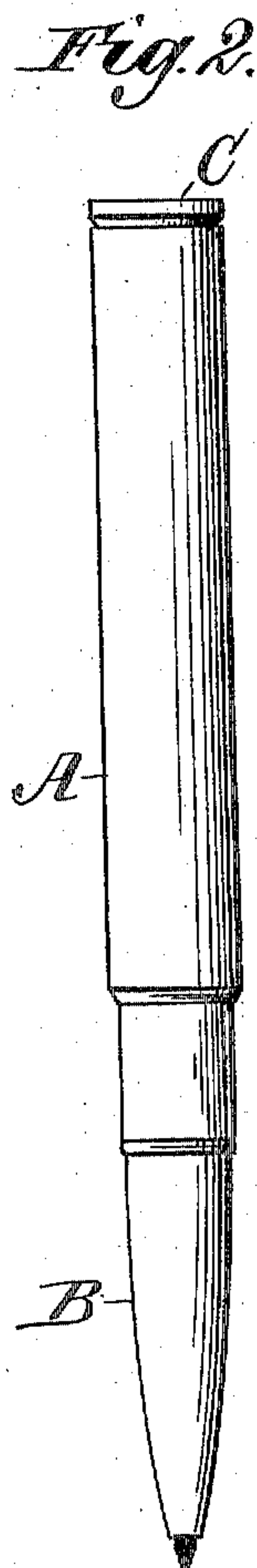
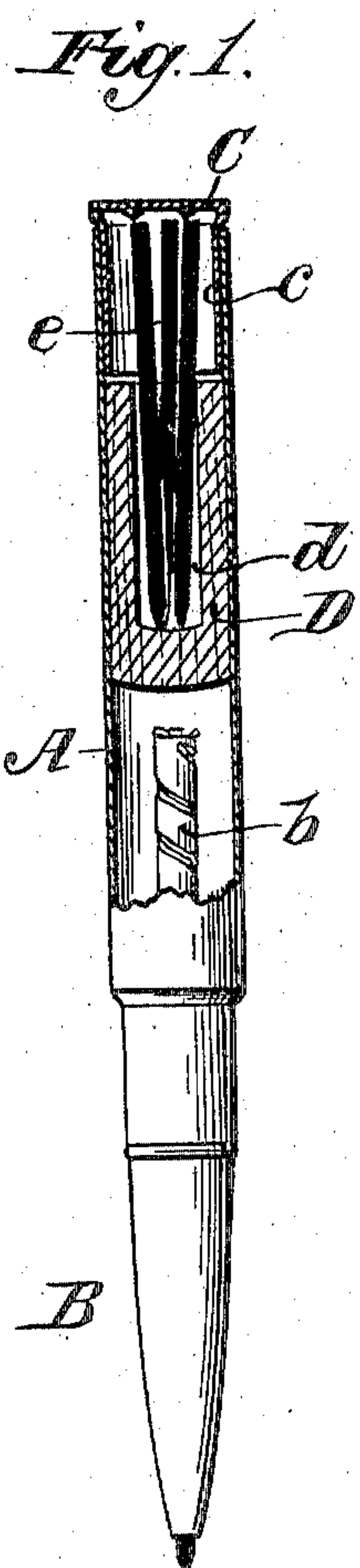


G. ARENDS.
MECHANICAL PENCIL.
APPLICATION FILED AUG. 6, 1909.

948,124.

Patented Feb. 1, 1910.



Witnesses:
Robert Smith,
H. Lee Stiles.

Inventor.
George Arends.
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Att'y.

UNITED STATES PATENT OFFICE.

GEORGE ARENDS, OF MAYWOOD, NEW JERSEY, ASSIGNOR TO EAGLE PENCIL COMPANY, OF NEW YORK, N. Y.

MECHANICAL PENCIL.

948,124.

Specification of Letters Patent.

Patented Feb. 1, 1910.

Application filed August 6, 1909. Serial No. 511,616.

To all whom it may concern:

Be it known that I, GEORGE ARENDS, of Maywood, county of Bergen, State of New Jersey, have invented a new and useful Improvement in Mechanical Pencils, of which the following is a specification.

My invention relates to mechanical pencils, such as propelling pencils, in which the lead is movable in the sheath or handle, and its object is to provide in the handle at small cost an efficient and convenient reservoir to contain a supply of loose leads, to replace when required the lead in the writing end of the pencil.

I will first describe my improvement in connection with the accompanying drawings and will then point out more particularly in the claim those features which I believe to be new and of my invention.

In said drawings—Figure 1 is a view, partly in elevation and partly in longitudinal section, of a propeller pencil embodying my improvement in its preferred form. Fig. 2 is a side elevation of the pencil.

A is the tubular sheet metal handle of the pencil.

B is the pro- and re-pelling "movement" secured in the front end of the handle in any customary or convenient way and of the usual construction; *b* is the rear end of the spirally grooved or slotted tube which constitutes part of the "movement".

The sheet metal handle is cylindrical and open from end to end. Its front end is closed by the "movement" B. Its rear end is closed by a removable cap C. In the rear portion of the handle is located an axially cored cylindrical wooden plug D. The central cored portion *d* stops short of the inner end of the plug, which is solid, there being thus formed in the plug a central chamber closed at the bottom and adapted to contain loose leads *e*. This cored plug, which is of such shape and diameter as to tightly fit the interior of the handle, is inserted into said handle from the rear end of the same (the cap being removed), and is then forced down into the handle the proper distance

to allow leads of desired length to be inserted and held in the chambered plug without their ends interfering with the cap C. The outer end of the plug is below the rear end of the handle by at least a distance equal to the length of the annular flange *c* of the cap which fits into the rear end of the handle. And the lead containing chamber in the plug is shorter than the leads *e*, so that while the latter will be contained entirely within the compass of the metal casing or handle A, their outer ends will protrude beyond the plug, leaving at the same time, between them and the metal case, an annular space, which facilitates the handling of the leads and at the same time keeps them away from the metal case. This annular space is provided for by the walls of the chambered plug, which are of such thickness as to effectively hold the protruding ends of the leads from contact with the interior of the handle, thus preventing them from rattling against the sheet metal wall of the handle when the pencil is in use. The plug is safely held in place in the handle by its frictional contact with the interior of the latter.

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

In a mechanical pencil a tubular sheet metal handle, a tight fitting wooden plug inserted and held in the rear portion of the handle and centrally cored for a portion of its length to form a lead containing chamber with walls of a thickness to hold the protruding ends of the leads away from the handle, the outer end of said plug being below the open rear end of the handle, and a removable cap fitting into that portion of the handle above the plug and closing the open rear end of said handle, as and for the purposes hereinbefore shown and specified.

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

GEORGE ARENDS.

Witnesses:

OSCAR B. ANDERSORN,

EDWARD M. BEROLZHEIMER.