

No. 613,452.

Patented Nov. 1, 1898.

F. H. LIPPINCOTT.
LEAD PENCIL.

(Application filed Oct. 15, 1897.)

(No Model.)

Fig. 1.

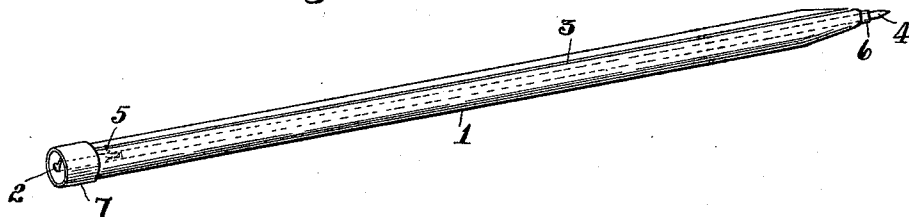


Fig. 2.

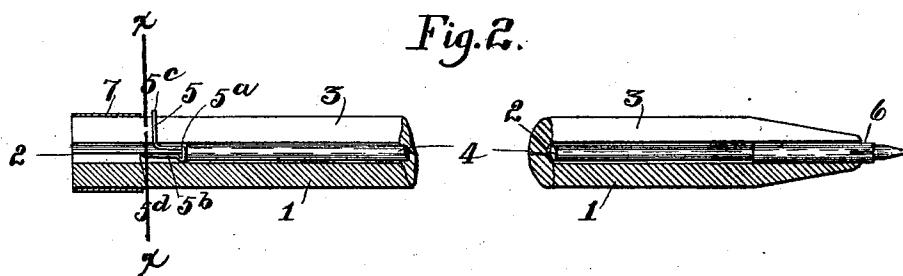


Fig. 3.

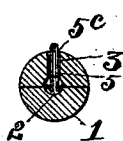


Fig. 4.

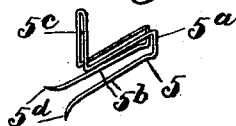
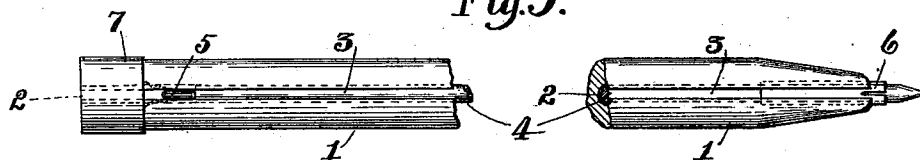


Fig.5.



Witnesses.

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UNITED STATES PATENT OFFICE.

FISHER H. LIPPINCOTT, OF PHILADELPHIA, PENNSYLVANIA.

LEAD-PENCIL.

SPECIFICATION forming part of Letters Patent No. 613,452, dated November 1, 1898.

Application filed October 15, 1897. Serial No. 655,274. (No model.)

To all whom it may concern:

Be it known that I, FISHER H. LIPPINCOTT, a citizen of the United States, residing in the city and county of Philadelphia, in the State of Pennsylvania, have invented certain new and useful Improvements in Lead-Pencils, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, of which—

Figure 1 is a perspective view; Fig. 2, a longitudinal section of Fig. 1, enlarged; Fig. 3, a section on line *x x*, Fig. 2; Fig. 4, a perspective of the follower, detached and enlarged; Fig. 5, a side elevation, the slot and the sliding piece or follower being toward the observer.

The nature of this invention is a lead-pencil having a tubular sheath or holder of wood or the like adapted to receive a lead or crayon capable of sliding longitudinally therein and a sliding piece, hereinafter termed the "follower," within the bore of the holder, having rearwardly and outwardly projecting spring-controlled points that while permitting the follower to be slid forward and so push the lead it, (the follower,) by reason of the said points catching in or penetrating the wood, cannot be moved back, and the follower then operates as a stop to prevent the lead which protrudes from the end of the holder from being pushed back by the pressure in writing.

The precise construction of the invention will clearly appear from the following description, reference being had to the accompanying drawings, which illustrate that form of the invention which I believe to be the preferable one.

In said drawings, 1 designates the sheath or holder, which is of the usual external form and is of wood or other comparatively soft material. 2 is a central bore extending through the same, and 3 is an open slot communicating with the bore and of a width somewhat less than the diameter of the latter, so that the lead 4 cannot escape laterally.

5 is the follower, constructed in the present instance of a piece of elastic or spring-wire bent into the suitable form shown and having a part 5^a adapted to the bore, with rearwardly-extending outwardly-turned pointed limbs 5^b, the point of each of which extends nor-

mally—that is, when the follower is detached—beyond the line of the side of part 5^a. The follower has, preferably, also a projection 5^c, that is adapted to pass into the slot 3, its outer end projecting therethrough a short distance beyond the side of the holder, as seen.

In applying and using the device I first slide the lead 4 into the bore 2 and then enter the follower into the rear or upper end of the latter, the divergent points (marked 5^d) being pressed toward each other as they enter the bore. It (the follower) is pushed forward by pressing against the projection 5^c until the lead has been advanced sufficiently far to protrude the desired distance from the front end of the holder. If now the pencil be used in writing, the lead cannot be pushed back by pressure of its point against the writing-surface, as obviously the points 5^d of the limbs 5^b of the follower will instantly catch in or penetrate the wood, and it will be equally obvious that they will be released from the latter when the follower is again slid forward to advance the lead.

Although the lead is intended to fit the bore of the pencil so that it (the lead) will be held by friction, I have found that the wood sometimes expands, and thus the lead becomes comparatively loose. In order to obviate this, I usually employ a tube 6, of metal or other suitable material, with a slightly contracted and split end, as shown, which tube is inserted within the forward end of the bore and is held in place by cement or otherwise. The diameter of this tube is about equal to that of the lead, excepting at the contracted end, which latter by its elasticity sufficiently holds the lead, yet permits it to be advanced when the follower is pushed forward. It is preferred to cement the tube to the pencil, for the reason that thereby the wood on the sides of the slot is prevented from spreading.

In lieu of the tube within the bore there may be used a sleeve or ferrule with a concave split end and forced onto the pencil, thereby serving to accomplish the same result as that secured by the inserted and cemented tube.

The follower may be pushed forward by a pin, knife-blade, or the like passed into the slot. The slot may also, at considerable dis-

advantage, however, be dispensed with, and the follower would then be advanced by means of an elongated rod or other elongated article entered into the open rear end of the bore.

5 I sometimes provide a sliding sleeve 7 upon the pencil to the rear of the projecting end of the part 5^c of the follower, which sleeve is slid forward against said projecting end, and thus advances the follower.

10 My device may be made in a variety of forms without departing from the essential principle or mode of operation of the invention. For example, the follower may be constructed with a single outwardly-projecting 15 pointed limb in lieu of two.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

20 1. In a pencil, the combination of the holder of wood or the like, having the lead-receiving bore and the open slot communicating therewith, of a width less than the diameter of the bore, and the follower within the bore having the spring-controlled rearwardly and 25 outwardly projecting point or points, substantially as and for the purpose specified.

2. In a pencil, the combination of the holder of wood or the like, having the lead-receiv-

ing bore and the open slot communicating therewith, whose width is less than the diameter of the bore, and the follower within said bore and having the spring-controlled rearwardly and outwardly projecting point or points, and having also the projection extending through said slot, substantially as and 35 for the purpose specified.

3. In a pencil, the combination of the holder, of wood or the like, having the lead-receiving bore, and the open slot communicating therewith, whose width is less than the diameter of the bore, and the tube secured to the forward end of the holder and having the contracted elastic or gripping end, and the follower within said bore, and having the spring-controlled rearwardly and outwardly 45 extending point or points and having also the projection extending through said slot, substantially as and for the purpose set forth.

In testimony whereof I have hereunto affixed my signature in the presence of two subscribing witnesses. 50

FISHER H. LIPPINCOTT.

Witnesses:

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JOSHUA PUSEY.