

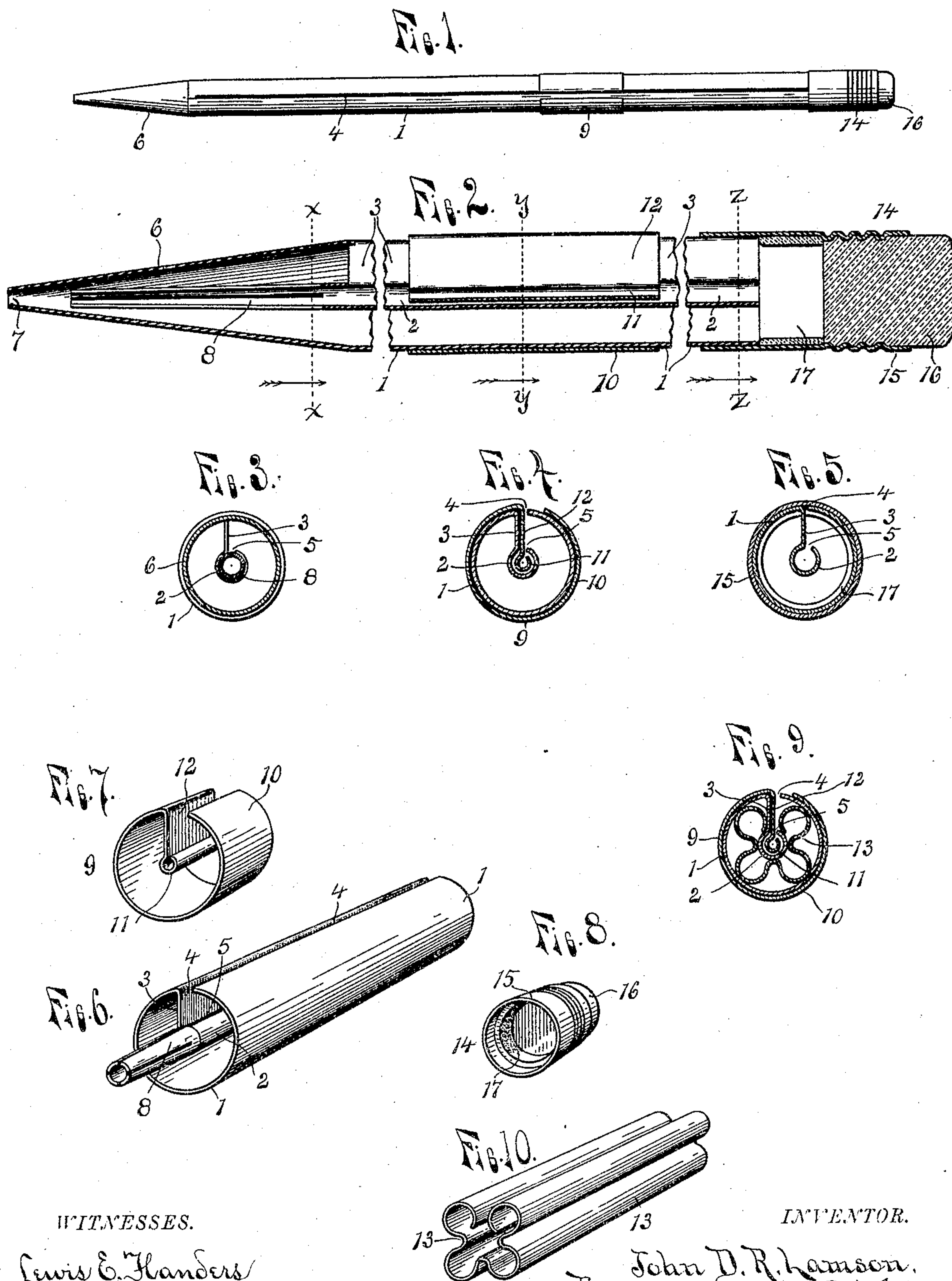
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J. D. R. LAMSON.  
PENCIL.

APPLICATION FILED JUNE 17, 1904.

NO MODEL.



WITNESSES.

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# UNITED STATES PATENT OFFICE.

JOHN D. R. LAMSON, OF TOLEDO, OHIO.

## PENCIL.

SPECIFICATION forming part of Letters Patent No. 775,493, dated November 22, 1904.

Application filed June 17, 1904. Serial No. 212,933. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN D. R. LAMSON, a citizen of the United States of America, residing at Toledo, in the county of Lucas and State of Ohio, have invented certain new and useful Improvements in Pencils, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to improvements in pencils, and especially to that class of pencils in which detachable leads are inserted, suitable means being provided for holding the lead while the pencil is being used and for moving the same forward as it is worn away; and the object of the invention is to provide a very inexpensive device which is simple in its construction, easy to manufacture, and efficient in its operation.

It is also an object of the invention to provide the device with means for holding extra leads and with certain other new and useful features and the particular construction and combination of parts, all as hereinafter more fully described, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of a device embodying the invention; Fig. 2, an enlarged longitudinal axial section of the same with parts broken away to shorten the figure. Fig. 3 is a section on the line *xx* of Fig. 2; Fig. 4, a similar section on the line *yy*; Fig. 5, a section on the line *zz*. Fig. 6 is an enlarged perspective view of the body portion detached; Fig. 7, a similar view of the follower-slide; Fig. 8, a perspective view of the eraser-cap. Fig. 9 is a transverse section of the device with the partition-wall in place, and Fig. 10 a perspective view of the partition-wall detached.

1 is the cylindrical body or barrel, formed from a sheet of metal or other suitable material rolled into a cylindrical form with one edge turned inward, and this inner edge is extended inward and again rolled into cylindrical form, thus forming the outer cylindrical barrel 1 and the inner axial cylinder or tube 2, connected by the wall 3. The free edges of the metal are not brought into contact with said wall, and thus a longitudinal slot 4 is

formed in the barrel and a similar slot 5 in the tube.

A conical point 6, formed of sheet metal, as shown, or cast or made of any other suitable material, is firmly secured to one end of the barrel by soldering or otherwise and formed with an opening 7 at its apex or point, through which the lead crayon is projected from the tube 2, into which tube the lead is inserted at the opposite end of the body. The tube 2 is extended beyond the barrel into the point to near the opening 7, and this extended end 8 is contracted to create a friction on the lead crayon by slitting the same longitudinally and bending the intermediate portions inward or by contracting the tube toward the said opening or point of the pencil in any convenient manner. After the lead has been inserted in the tube it is forced out through the opening in the point against the frictional resistance of the contracted end of the tube by a follower-slide 9, which is formed of a sheet of metal or other suitable material in a manner similar to the body, with an outer cylindrical band 10 adapted to encircle the barrel and an axial tube forming a follower 11, adapted to slide within the crayon-tube and connected to the band by a wall 12, similar to the wall 3, which wall 12 passes through the slots 4 and 5 and slides therein as the follower is moved along the tube.

The lead crayon is prevented from being forced inward by the pressure on its point in writing by the contracted end of the tube and the follower which is in engagement with its opposite end. The frictional resistance of the band 10 engaging the outer surface of the barrel prevents the follower-slide from being moved by the pressure on the point of the lead, and this resistance may be increased by bending the band so that it will hug the barrel more tightly.

The space within the barrel around the tube may be divided into chambers, as shown in Fig. 9, to receive extra lead crayons by inserting therein a tortuous partition 13, formed of a sheet of metal, paper, or other suitable material, or several walls may be inserted to divide the space.



An eraser-cap 14, similar in construction to the ordinary cap used on the common wood pencils, is provided, said cap consisting of a cylindrical body 15, in the outer end of which is inserted a suitable rubber eraser 16, which is held therein by grooving the body in the ordinary manner, the opposite end of the body serving as a socket to receive the end of the barrel, and the cap is of such a diameter that in order to insert the end of the barrel therein it is necessary to spring the barrel until the slot 4 is nearly closed, and thus the cap is firmly held thereon. The interior of the cap adjacent to the eraser is provided with a band of abrasive material 17, so that by removing the cap the point of the lead may be sharpened by holding it against said band and turning the cap or pencil. The eraser-cap thus serves as a cap to hold the leads in the body and prevent dirt, &c., from getting in. It serves as a holder for the eraser and also as a sharpener for the lead points.

Having thus fully described my invention, what I claim is—

1. In a pencil, the combination of a body portion formed of sheet material bent to form an outer cylindrical barrel, a crayon-tube within the axis of said barrel and a wall connecting the barrel and tube; and means for adjusting and holding a crayon within the tube.

2. In a pencil, the combination of an outer cylindrical barrel having a longitudinal slot, a crayon-tube in the axis of said barrel having a longitudinal slot opposite the slot in the barrel and provided with a contracted end to frictionally hold a crayon, a wall connecting the barrel and tube to support the latter within the former, and a follower-slide extending inward through said slots.

3. In a pencil, the combination of an outer cylindrical barrel having a longitudinal slot, a crayon-tube in the axis of said barrel having a longitudinal slot opposite the slot in the barrel, and a follower-slide consisting of a band to frictionally engage the outer surface of the barrel and a wall extending into the crayon-tube through the slots in the barrel and tube.

4. In a pencil, the combination of the barrel and crayon-tube formed from a sheet of metal by forming the same into a cylindrical outer barrel, thence turning one edge of the sheet inward and forming a tube at the axis of the barrel with a wall connecting said tube and barrel, the edges of the sheet being separated from said wall to form a longitudinal slot in the barrel and a slot in the tube, and one end of said tube being extended beyond the barrel and contracted to frictionally hold a crayon, a follower-slide formed from a strip of mate-

rial by forming the same into a band to engage the outer surface of the barrel and one edge of which strip is turned inward to extend through the slots in the barrel and tube.

5. In a pencil, the combination of a cylindrical barrel having a longitudinal slot and a conical end having an opening in its apex, a crayon-tube in the barrel having a longitudinal slot opposite the slot in the barrel and a reduced end extending to a point adjacent to the opening in the conical end, a wall connecting the barrel and tube at one side of their slots, and a follower-slide consisting of a band sleeved upon and frictionally engaging the outer surface of the barrel, a follower adapted to slide within the crayon-tube, and a wall connecting the band and follower extending through and movable in the slots in said barrel and tube.

6. In a pencil, the combination with a cylindrical barrel formed of sheet metal adapted to yield and slitted longitudinally inward from one end, of a cylindrical cap adapted to receive said end of the barrel, and a band of abrasive material in the cap.

7. In a pencil, the combination with a cylindrical barrel a crayon-tube in said barrel, a wall connecting the barrel and tube and means for holding and moving the crayon in its tube, of a tortuously-formed partition-wall dividing the space within the barrel around the tube into chambers for the reception of crayons.

8. In a pencil, the combination of a cylindrical barrel provided with a conical end having an opening in its apex and a slot extending inward from the opposite end of the barrel, a crayon-tube within the barrel provided with a longitudinal slot opposite the slot in the barrel and having a reduced and slitted end extending within the conical end to a point adjacent to the opening, a follower-slide consisting of an open band embracing the barrel and in frictional engagement therewith and a follower within the crayon-tube connected to the band by a wall extending through the slots in the barrel and tube, a tortuously-formed wall dividing the space within the barrel around the tube, a cylindrical cap adapted to receive one end of the barrel, a rubber eraser secured within one end of the cylindrical cap, and an abrasive band within the cap.

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

JOHN D. R. LAMSON.

Witnesses:

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