

O. CLEVELAND.

PENCILS WITH MOVABLE LEADS.

No. 184,035.

Patented Nov. 7, 1876.

Fig. 1.

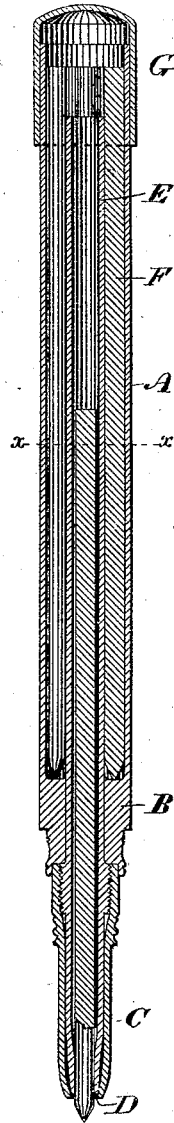


Fig. 2.

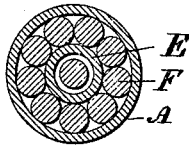
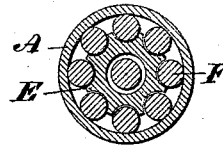


Fig. 3.



WITNESSES

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IMPROVEMENT IN PENCILS WITH MOVABLE LEADS.

Specification forming part of Letters Patent No. **184,035**, dated November 7, 1876; application filed April 8, 1876.

To all whom it may concern:

Be it known that I, ORESTES CLEVELAND, of Jersey City, county of Hudson, and State of New Jersey, have invented certain new and useful Improvements in Pencils with Movable Leads; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing, forming a part of this specification, in which—

Figure 1 represents an enlarged longitudinal sectional view of a pencil containing my invention. Fig. 2 is a transverse section of the same on line *xx*. Fig. 3 is an enlarged sectional view, showing a modification of the same.

The object of my invention is to produce a pencil in which long movable leads are used, which shall be so constructed as to be capable of receiving a number of such leads in addition to the one in use, and cheaply manufactured; and it consists in the device hereinafter fully described and claimed.

A is a tube, of suitable diameter and length, securely attached at one end to a collar, B, by screwing, soldering, or any other common and well-known method. G is a cap, which fits over the other end of the tube A, and is held securely thereon by means of a screw, spring, or other device, which readily permits of its removal. Another tube, E, smaller in diameter than the tube A, placed within the tube A, is also secured to the collar B, either rigidly or removably, in any common and well-known manner. This tube may be shorter than the tube A, if desired. The internal diameter of the tube E is such as to form a receptacle for and easily permit the lead of any given size to freely move therein, while its external diameter is such that there is a space between its periphery and the internal surface of the tube A large enough to form a reservoir for receiving one or more long leads, F, similar to those used with the pencil, the ends of which rest against the collar B when the pencil is in the position shown in Fig. 1.

Any means may be employed for holding and feeding the lead as it is worn away by use. In the drawing I have shown for this purpose a sleeve, D, secured at one end to the collar

B, the other end for some distance being split. The outer end of this sleeve is slightly conical in form, and is contracted, to grasp the lead, by means of a sleeve, C, which screws upon the former, the resiliency of the split portions of the sleeve D causing them to expand when the sleeve C is unscrewed, and thus permit the lead to be drawn out by the hand.

The inner tube E may be fluted, as shown in Fig. 3, so as to separate the leads from one another, or partitions may extend from the inner to the outer tube, so as to form cages or cells, each just large enough to contain the lead of the desired size.

The diameter of the inner and outer tubes may be increased or diminished, to adapt them to the size of lead which is to be used.

Instead of the cap G, the tube A may be made solid at that end, and be screwed or otherwise fastened upon the collar B, although I prefer to use the cap.

The construction of the device so that the inner and outer tubes are held in the relative positions described may be varied without departing from my invention, as any construction that provides a receptacle for the long lead in use, and a reservoir around said receptacle for similar leads ready to be used, said receptacle and reservoir being independent of, and entirely out of the way of, the devices that hold and feed the lead in use, comes within the scope of my invention.

The advantages possessed by my device are, it can be cheaply manufactured, has no complex mechanism to get out of order, and affords a receptacle for the lead in use, and a reservoir for the leads to be used independent of the portion which holds and feeds the lead in use.

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

1. A pencil having an inner tube, forming a receptacle for the lead in use, and an outer tube, forming, with the inner tube, a reservoir for one or more similar leads, substantially as described.

2. The combination of an inner tube, forming a receptacle for the lead in use, an outer tube, forming, with the inner tube, a reservoir

for one or more similar leads, with means, substantially as described, for holding the lead in use, as specified.

3. The combination of an inner tube, forming a receptacle for the lead in use, an outer tube, forming, with the inner tube, a reservoir for one or more similar leads, and a cap, G, substantially as shown and described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ORESTES CLEVELAND.

Witnesses:

HENRY T. MUNSON,
C. H. RIDENOUR.