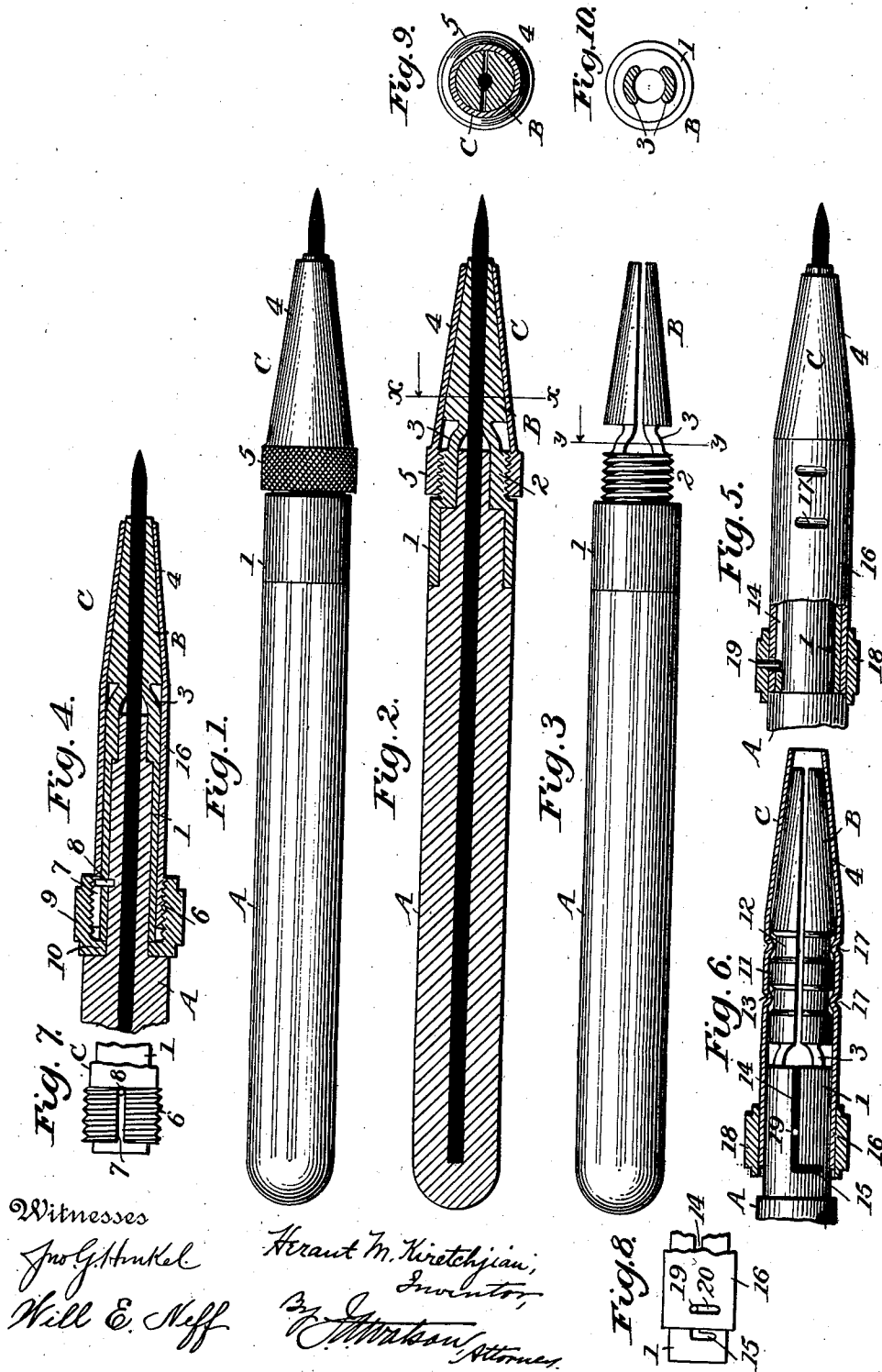


(No Model.)

H. M. KIRETCHJIAN. PENCIL.

No. 549,137.

Patented Nov. 5, 1895.



Witnesses

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UNITED STATES PATENT OFFICE.

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PENCIL.

SPECIFICATION forming part of Letters Patent No. 549,137, dated November 5, 1895.

Application filed February 20, 1895. Serial No. 539,116. (No model.)

To all whom it may concern:

Be it known that I, HERANT MESROB KIRETCHIAN, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Pencils, of which the following is a specification.

My invention relates to lead-pencils, and particularly to that class of pencils in which the lead is adjustable in the case, so that when broken or worn at the point a new portion may be brought into service by simply moving the lead forward in the case while it is temporarily released from a clamp.

The objects of the invention are to produce a pencil of this class which shall be cheap, simple, and strong in construction, and which is similar in shape to the wooden lead-pencils commonly in use, and in which the leads may be securely clamped without danger of being crushed or broken, while at the same time they may be quickly released for adjustment.

The details of construction of the invention in the several forms in which I have embodied it will be described in connection with the accompanying drawings, in which—

Figure 1 is a side view of a pencil constructed in accordance with the invention. Fig. 2 is a central sectional view of the same, showing the lead clamped therein. Fig. 3 is a side view with the clamping-sleeve and lead removed. Fig. 4 is a central sectional view of a modified form. Fig. 5 is a side view, partly broken away, showing another form of the invention. Fig. 6 is a view partly in section of the form shown in Fig. 5. Fig. 7 is a view of part of the pencil shown in Fig. 4, the clamping-nut being removed. Fig. 8 is a similar view of the form of pencil shown in Figs. 5 and 6. Fig. 9 is a section on the line xx of Fig. 2, and Fig. 10 is a section on the line yy of Fig. 3.

In each of the forms of the invention there is a case or holder A, having a central bore to receive the lead, a pair of tapered clamping-jaws B, connected with a ferrule upon the end of the holder, and a tapered or conical clamping-sleeve C, adapted to be drawn over the jaws to close them upon the lead.

In Figs. 1, 2, and 3 the case or stem A is centrally bored to receive the lead, and re-

duced at its forward end to receive a ferrule 1, which is preferably integral with the clamping-jaws B. The forward section 2 of the ferrule is reduced in diameter and screw-threaded, and to this section the jaws B are connected by spring portions 3, which normally hold the jaws slightly apart but permit them to be clamped upon the lead by the sleeve. In transverse section the jaws are nearly or quite semicircular, and they are preferably grooved on their inner faces to conform to the shape of the lead, as shown in Fig. 9.

I prefer to make the ferrules 1 2, the spring portions 3, and the jaws B integral, although I do not care to limit myself to this mode of construction.

The sleeve C consists of a hollow cone 4, having at its rear end an internally-threaded portion 5, adapted to screw onto the threaded portion 2 of the ferrule, and provided with a roughened outer surface to facilitate turning it. The jaws B and the sleeve C are of sufficient length to grasp the lead for a considerable distance from the point, and they hold it as firmly as if it were embedded in wood, as in the ordinary lead-pencils. These jaws are arranged to clamp with equal force throughout their length and thus avoid excessive pressure at any one point of the lead, which would injure it and make it liable to break. The sleeve C is preferably tapered in about the degree common in properly sharpened wooden pencils.

In Figs. 4 and 7 the sleeve C has an external thread 6 at its inner end and a slot 7, into which a pin 8 projects to prevent the sleeve from turning. The ferrule 1 extends rearward slightly beyond the sleeve, and the pin 8 passes through the ferrule and into the case or stem of the pencil, thus serving to hold the parts together. There is a nut 9, internally threaded to correspond with the threaded portion 6 of the sleeve, and having an internal annular shoulder 10 at its inner end which bears upon the inner end of the ferrule. In this form of the invention the lead is clamped by the jaws exactly as in the form shown in Fig. 1. The conical sleeve is forced in or out by turning the nut 9, the sleeve being prevented from turning by a pin 8.

In the form of the invention shown in Figs. 5, 6, and 8 the screw is dispensed with and means provided for drawing the sleeve directly upon the jaws. Between the tapered portion of the jaws B and the springs 3 there is a cylindrical portion 11, having one or more annular grooves 12, preferably with beveled sides 13. The ferrule 1 is provided with a slot or groove 14, having an L-shaped extension 15 at its inner end. The sleeve C in these figures is conical at its outer end, and has a cylindrical portion 16, extending to the inner end of the ferrule. This cylindrical portion is provided with one or more inward projections 17, formed by indenting the outer surface of the sleeve. When the sleeve is drawn forward to permit the jaws to open to release the lead, the projections 17 lie in the annular grooves 12, and when the sleeve is forced back to clamp the lead the projections 17 ride on the raised portions of the jaws adjacent to the grooves. The sleeve is made of spring metal, and this clamping action is permitted both by the jaws moving inward and the projections 17 moving slightly outward. For convenience in drawing the sleeve inward to clamp the lead and for the purpose of locking the sleeve I provide a collar 18 upon the inner end of the sleeve, said collar having a pin 19, which projects inward through a transverse slot 20 in the sleeve and enters the slot 14 15 in the ferrule. When the lead is to be clamped, the collar 18 is pushed inward until the pin arrives at the end of the slot 14 and then turned to throw the pin into the transverse portion 15 of the groove of the ferrule.

It will be evident that various changes in mechanical details of the pencils can be made without departing from the spirit of my invention. Therefore, without limiting myself to the precise construction and arrangement of parts shown and described,

I claim—

1. In a pencil of the class described the combination with the case or stem having a central bore to receive the lead, of a ferrule on the end of the case, a pair of elongated clamping jaws united to the ferrule by spring connections, said jaws having tapered outer surfaces and substantially parallel inner faces, a tapered sleeve fitted over the jaws, and means for adjusting the sleeve to clamp the jaws upon the lead, substantially as described.

2. In a pencil of the class described the combination with the case or stem having a central bore to receive the lead, of a ferrule on the end of the case, a pair of elongated tapered clamping jaws having substantially parallel inner faces grooved to receive the lead, said jaws being adapted to clamp the lead throughout their length, connecting spring portions between and integral with the ferrule and the jaws, a tapered sleeve fitting over the jaws, and means for adjusting the sleeve to clamp the jaws, substantially as described.

3. In a pencil of the class described the combination with the case or stem having a central bore to receive the lead, of a ferrule on the end of the case provided with a threaded portion, a pair of elongated tapered clamping jaws united to the ferrule by spring connections, said jaws having inner parallel faces adapted to engage the lead throughout their entire length, and a conical sleeve fitting over the jaws, said sleeve having an interior thread at its larger end adapted to engage the thread of the ferrule, substantially as described.

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

HERANT MESROB KIRETCHJIAN.

Witnesses:

J. S. DUNCAN,

GUSTAVE S. GALBENHIME.