

Sept. 16, 1924.

1,508,795

C. N. JOHNSON

PENCIL

Filed Nov. 28, 1921

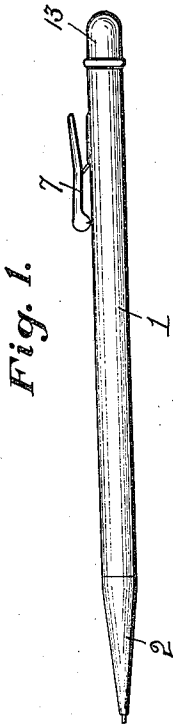


Fig. 1.

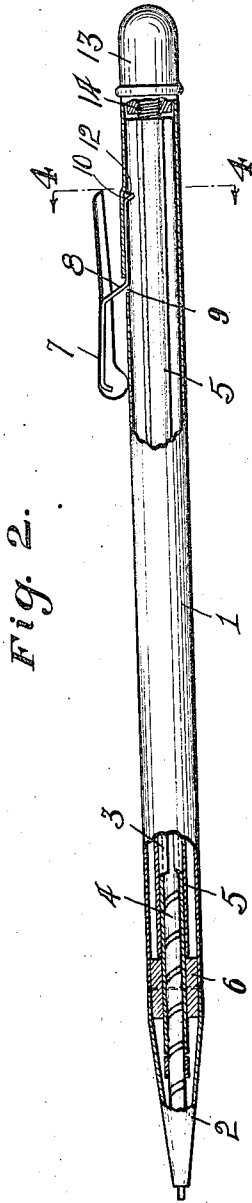


Fig. 2.

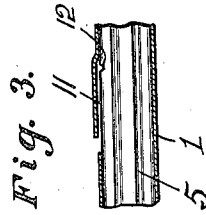


Fig. 3.

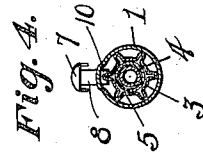


Fig. 4.

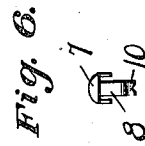


Fig. 5.

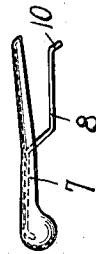


Fig. 6.

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Patented Sept. 16, 1924.

1,508,795

UNITED STATES PATENT OFFICE.

CLIFFORD N. JOHNSON, OF TOLEDO, OHIO, ASSIGNOR TO THE CONKLIN PEN MANUFACTURING COMPANY, OF TOLEDO, OHIO, A CORPORATION OF OHIO.

PENCIL.

Application filed November 28, 1921. Serial No. 518,193.

To all whom it may concern:

Be it known that I, CLIFFORD N. JOHNSON, a citizen of the United States, and a resident of Toledo, county of Lucas, and State of Ohio, have made an Invention Appertaining to a Pencil; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the characters of reference marked thereon, which form a part of this specification.

This invention relates to pencils and particularly to a magazine pencil of the type in which a barrel and a tip member are respectively mounted for relative rotary movements on inner tubes fitting one within the other and spaced from the barrel, one tube having a helical and the other a longitudinally extending slot for receiving studs of the enclosed lead actuating mechanism, whereby a relative turning of the tubes will impart propelling and repelling movements to a lead. The inner of said tubes is fixed to the tip member and the outer one to the barrel to respectively turn therewith, and a corrugated magazine sleeve fits between and is adapted to turn in unison with the barrel and the outer slotted tube, the barrel being fixedly connected to the magazine sleeve and to the outer slotted tube.

The primary object of this invention is to utilize the spring or hook carrying finger-like member of a pocket engaging clip to rigidly secure the magazine sleeve of the pencil in assembled position within the barrel, and vice versa, whereby to simplify, cheapen and quicken the manufacture of such pencils, facilitate repairs and enhance the practicability and commercial value thereof.

The invention is fully described in the following specification, and while in its broader aspect it is capable of embodiment in numerous forms, a preferred embodiment thereof is illustrated in the accompanying drawings, in which,—

Fig. 1 is a side elevation of a pencil embodying the invention. Fig. 2 is a similar enlarged view thereof with portions broken away. Fig. 3 is a fragmentary portion of Fig. 1 with the pocket engaging clip removed. Fig. 4 is a section on the line 4—4

in Fig. 2, and Figs. 5 and 6 are side and end views of the clip.

Referring to the drawings, 1 and 2 respectively designate the relatively rotatable barrel and tip members of a pencil embodying the invention, 3 and 4 the outer and inner slotted tubes fitting one within the other and spaced from the barrel, and 5 the corrugated magazine sleeve fitting between the outer slotted tube 3 and barrel 5. In the present instance the tube 3 is provided with a longitudinal slot and the tube 4 with a helical slot. A short bearing 6 is fixed on the forward or inner end of the tube 3 and forms a bearing for the adjacent ends of the barrel 1 and tip 2, the latter having a turning fit thereon. The tube 4 is intended to project at the writing end of the pencil beyond the tube 3 and is fixedly connected to the tip 2 to turn therewith.

The pocket engaging clip 7, which is attached to the barrel 1, is preferably of the lever type, for instance like or similar to that disclosed in U. S. Letters Patent No. 1,267,575 dated May 28, 1918, wherein the clip member is carried by a spring finger which projects from the lever intermediate its ends and thence through a hole in the side of the barrel or other part to which secured, the inner end portion of the spring lying along the inner side of the barrel and being firmly held thereto by an inner plug or sleeve member within the barrel. It is not desired, however, to restrict the present invention to the use of a clip of this character for, so far as the invention is concerned, the barrel engaging spring finger, or other part of the clip may be disposed at an end thereof intermediate its ends or in any other suitable position.

In the present embodiment of the invention the barrel engaging member of the clip comprises a spring finger 8 which is fixedly secured to the clip 7 and projects laterally therefrom intermediate its ends through an opening 9 in the side of the barrel 1 adjacent to its outer end and then extends along the inner side of the barrel to and in contact therewith and has its free end terminating in an inwardly extending tail-piece or portion 10 projecting toward the axis of the pencil and preferably notched to receive the outer edge portion of one of the ribs of the corrugated sleeve 5. Inasmuch as the magazine sleeve 5 is intended to fit

5 closely in the barrel 1, the portion of the barrel within which the member 8 is disposed is slightly outwardly offset to provide a space 11 between the magazine and barrel 1 for receiving said member. The rib of the magazine tube with which the member 8 engages is provided with a notch 12 with which the angled end 10 of the member 8 has interlocking engagement when the parts are in assembled relation as shown in Fig. 4.

10 In assembling the parts of the pencil, it is found preferable in practice to assemble all of the pencil parts with the exception of mounting the barrel on the magazine sleeve 5, which latter is soldered or otherwise suitably fixed on the slotted tube 3. A clip 7 is then placed in engagement with the barrel by inserting its carrying finger 20 or member 8 through the barrel opening 9 to position the clip in assembled position with respect to the barrel. The barrel is then forced over the magazine sleeve 5 until its inner end passes over the bearing collar 25 in substantially end abutment with the inner end of the tip member 2. In forcing the barrel over the magazine sleeve, care should be taken that the rib of the sleeve having the notch 12 therein is the one which 30 has engagement with the notched tail-piece of the finger 8 so that such tail-piece will spring into locking engagement with the notch 12 when the notch is brought into register therewith. To facilitate forcing a rib of the magazine sleeve past the inwardly angled tail-piece of the clip carrying member 8, such tail-piece should be inclined 35 away from the forward end of the barrel in the direction of insertion of the magazine therein, as shown. The outer end of the barrel 1 and magazine 5 are closed by a removable cap member 13 which is threaded to a plug 14 projecting axially from the 40 outer end of the magazine sleeve.

45 It is evident that the interengaging of the tail-piece of the clip carrying member with a rib of the magazine insures a rigid locking of the barrel and magazine together so that a turning of the barrel will cause rotation to be communicated to the 50 slotted tube 3 through the magazine, which is fixed to said tube. It is evident that this invention provides not only a simple means for securing the clip to a pencil barrel, but also materially facilitates and cheapens the 55 cost of assembling of the pencil parts.

I wish it understood that my invention is not limited to any specific construction, ar-

54 rangement or form of the parts as it is capable of embodiment in numerous forms without departing from the spirit of the claims.

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

1. In a pencil of the class described, a barrel having a side opening therein, a longitudinally corrugated magazine tube in the barrel, and a clip carrying member projecting through the opening in the barrel and interengaging and firmly held to the inner side of the barrel by a corrugation of the magazine tube.

2. In a pencil of the class described, a barrel, a corrugated sleeve in the barrel, a clip carrying member projecting through a side of the barrel and longitudinally thereof between the sleeve and barrel, said member and a corrugation of the sleeve interengaging to lock the barrel and sleeve in assembled position.

3. In a pencil of the class described, a barrel, a corrugated magazine sleeve fitting in the barrel, a clip carrying member projecting into the barrel through a side thereof and extending in close fitting relation between the barrel and a rib of the sleeve longitudinally thereof, the member having a portion interengaging with the sleeve rib to lock the sleeve and barrel in assembled relation.

4. In a pencil of the class described, a barrel, a corrugated sleeve fitted in the barrel and having a notched rib, a clip carrying member projecting into the barrel through a side thereof and thence longitudinally of the barrel in close fitting relation between the barrel and notched rib of the sleeve and having an angled portion in catch engagement with the rib notch.

5. In a pencil of the class described, a barrel having a side opening, a longitudinally corrugated magazine sleeve fitted in the barrel and having a notch in a rib thereof, a clip carrying member projecting through the barrel opening and thence lengthwise of the barrel in close fitting relation between the barrel wall and the notched rib of the sleeve and having an inwardly angled notched tail-piece straddling the notched rib and interengaged with the notch of the rib.

In testimony whereof I have hereunto subscribed my name to this specification.

CLIFFORD N. JOHNSON.