

PATENT SPECIFICATION

638,420



Date of Application and filing Complete Specification: April 8, 1947.

No. 9323/47.

Application made in France on April 11, 1946.

Complete Specification Published: June 7, 1950.

Index at acceptance:—Class 146(iii), A5(a3b: h).

COMPLETE SPECIFICATION

Improvements in or relating to Multiple Lead Pencils

We, ETABLISSEMENTS STYLOMINE, of 2, rue de Nice, Paris XI^e, France, a body corporate organised under the Laws of France, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

In known propelling multiple-lead pencils of the kind including a slidable member for feeding each lead carrier from its inoperative to its operative position moving in a longitudinal slot in the main body of the pencil, various means have been proposed for holding in place the lead holder which is to be used.

Our invention has for its object simplified means for securing the individual lead-carriers of a multiple lead pencil in the working position, said arrangement being more reliable and stronger than known constructions.

According to our invention, a propelling pencil of the above kind is characterised in that a spring is provided for returning the slidable member to its inoperative position, the point of attachment of said spring being so selected that the action of said spring tends to cause the slidable member to rock in the direction required for a retaining hook to engage at the end of the operative stroke a recess provided for this purpose in the main body of the pencil. To project the lead forward the slidable member is pushed forward with the finger from its inoperative position into its operative position; when it arrives at the end of its stroke, and the pressure of the finger on the slidable member is released, it engages automatically the recess provided for this purpose in the main body of the propelling pencil.

In order to allow our invention to be better understood, we will now disclose by way of example and by no means in a binding sense, two forms of execution illustrated in the accompanying drawings. In said drawings:

[Price 2/-]

Fig. 1 illustrates a first form of execution in elevational view, partly sectional.

Fig. 2 is a similar view of a second form of execution.

Fig. 3 is transversal cross-section through line 3—3 of Fig. 2.

In Fig. 1, the body of the propelling pencil is illustrated at 1 and one individual lead carrier 2 is shown as pivotally secured at 3 to its controlling slidable member adapted to slide in the slot 4 of the pencil body.

The slidable member 5a is located mainly inside of the body of the pencil and a part adapted to pass through the slot 4 which is attached to a part 5b which is too wide to enter the slot 4. A return spring 15 acts at 7 in the direction of the arrow 8 on the member 5a. The point 7 at which the return spring acts on said member 5a is selected so as to be as far as possible from the wall of the main body 1. When the user wishes to use any of the individual lead carriers 2, he pushes with his finger the outer part 5b of the corresponding member 5a in the direction of the arrow 9. The member 5a slides in the slot 4 and during this displacement it is submitted on the one hand to the action of the finger of the user in the direction of the arrow 9 and it is submitted on the other hand to the return action exerted by the return spring 15. These two forces result in a force which urges the member 5a to rotate about the rounded under face 10 of part 5b. At the end of the stroke of the member 5a the hook 6 lies above a locking recess 11 provided in the body of the pencil and the said force then becomes effective to engage the hook 6 in the recess 11 which is of sufficient size for this purpose. Consequently the slidable member will rock at the end of its stroke and its hook will engage the recess 11.

The lead-carrier 2 is preferably secured at a point 3 nearer the wall of the body of the pencil than the point 7 on which the spring exerts its action.

To return the lead carrier from its

operative position into its inoperative position, the user has merely to depress the rear outer end of the slidable member 5a at 12 and as he overcomes thus the engaging torque the hook 6 will be released. The return spring will then return the individual lead carrier into its inoperative position.

In the constructions shown in Figs. 2 and 3 the operating slide comprises two parts pivotally secured together, to wit: the inner member 13a forming a pawl and to which is pivotally secured the individual lead carrier 2, and the slidable member 13b projecting partly to the outside of the pencil and submitted to the action of the user's finger. These two members slide inside the slot 4 and are pivotally secured together at 14.

The member 13a is submitted to the action of the return spring 15 secured to a point 16 nearer the wall of the main body of the pencil than the pivoting point 14. When the user urges the slidable member 13b forward with his finger for setting the lead carrier 2 into its operative position he exerts in the direction of the arrow 9 a force that is transmitted through the pivotal point 14 to the member 13a.

The latter is therefore submitted to a force which tends to rock it outwardly. This rocking motion is effected at a moment when the projection 17 arrives in front of the recess 11 inside which it may be engaged and held fast. To release said projection 17, it is sufficient to depress the part 20 on the member 13a. The pivotal connection between the latter and member 13b may be executed as illustrated in the cross section of Fig. 3. The member 13a is pivotally secured at 14 to member 18 and the member 18 is secured to the slider 13b by means of two rivets 19 passing through the longitudinal slot 4.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is:—

1. A propelling pencil of the multiple lead type including a slidable member for feeding each lead carrier from its inoperative to its operative position moving in a longitudinal slot in the main body of the pencil, said slidable member being characterised by the fact that a spring is provided for returning the member to its inoperative position, the point of attachment of said spring being so selected that

the action of said spring tends to cause the slidable member to rock in the direction required for a retaining hook to engage at the end of the operative stroke a recess provided for this purpose in the main body of the pencil.

2. A propelling pencil as claimed in claim 1 wherein the retainer hook forms part of the slidable member and the latter is mounted in a manner to permit rocking motion so that as the slidable member is moved forward by finger pressure, such pressure also tends to engage the hook in the recess.

3. A propelling pencil as claimed in claim 1 or 2 wherein the slidable member is provided with a rounded under face round which finger pressure on the rear of the slidable member produces a rocking movement for releasing the retaining hook holding the lead carrier in its operative position.

4. A propelling pencil as claimed in claim 1 wherein the hook on the slidable member is too wide to be capable of entering the longitudinal slot and engages at the end of the slidable member stroke a recess in the main body of the propelling pencil with an inwardly directed rocking movement.

5. A propelling pencil as claimed in claim 1 wherein the slidable member is provided with a pawl on the inside of the main body of the pencil, said pawl engaging at the end of its stroke a recess of said main body with an outwardly directed rocking movement.

6. A propelling pencil as claimed in claim 1 or 5 wherein the slidable member is made of two members pivotally secured together and of which one serves as a bearing for the finger urging the slidable member into its operative position while the other is submitted to the action of the spring for returning the lead carrier into its inoperative position, these parts being so arranged that a force is produced for engaging the slider with a recess in the pencil wall, said other member including a projection passing through the slot, the depression of which releases the slidable member.

7. A propelling pencil substantially as described with reference to and as illustrated in the accompanying drawings.

Dated this 8th day of April, 1947.

BROMHEAD & CO.,
Chartered Patent Agents,
229/230, Strand, London, W.C.2.

Fig.1

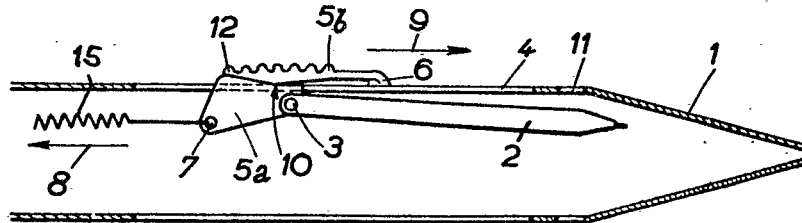


Fig.2

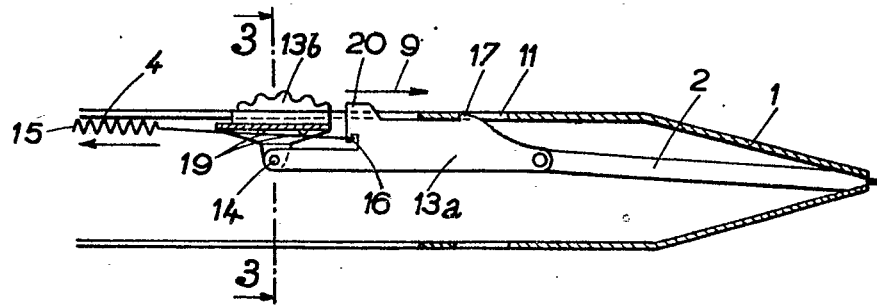
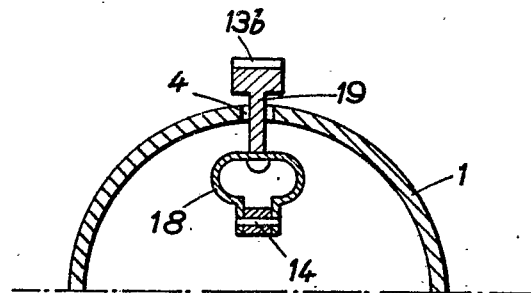


Fig.3



[This Drawing is a reproduction of the Original on a reduced scale.]