

## PATENT SPECIFICATION

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478,118

(Divided out of No. 474,736).

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## COMPLETE SPECIFICATION

### Improvements in and relating to Magazine Lead Pencils with Selectively Interchangeable Lead Holders

I, KURT FEND, of 24, Maximilianstrasse, Pforzheim, Germany, of German nationality, 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:—

This invention is an improvement in or a modification of the invention claimed in Specification No. 474,736.

The main application relates to a magazine lead pencil with selectively interchangeable lead holders which are individually shiftable by means of sliding members through guide slots provided in the pencil casing from a non-use position into a recess for the working position and, after being released, slide under the action of a spring back into the non-use position. It has for its subject matter that the locking means which holds one of the lead holders in the operative position is released by the forward movement of each of the other lead holders. The arrangement is such that besides the pencil casing another casing is provided, which is capable of being turned with respect to the pencil casing but not of sliding and which is provided for each of the sliding members moving in the guiding slots of the pencil casing with a longitudinal slot.

According to the present invention, in one form slots in one casing each have a forward widening with a sloping counter edge, the rear part of each slot being straight, while each slot of the other casing has a forward straight part and a sloping edge in its rear part. Alternatively, the forward widenings of the slots of one casing may each have a straight counter edge and each of the slots of the same casing has a sloping edge in its rear part, a spring being provided for turning the casings with respect to one another into the locking position.

In the accompanying drawing constructional examples of the invention are shown.

Fig. 1 is a view of both the casings, the outer casing being in section, with the slots,

Fig. 2 is a view partly in section of another constructional form of the lead pencil, in which the rotary casing is turned back by a spring into the locking position,

Fig. 3 is another form of the pencil, in which each lead holder is drawn back by a separate spring,

Fig. 4 is a section on line 4—4 of Fig. 3, and

Fig. 5 is a longitudinal section through a lead holder with a returning spring, according to Fig. 4.

In Figure 1, 1 is the outer casing and 17 the inner casing. A slot 24<sup>1</sup> in one casing has a narrow and straight rear part. The forward end of the slot has a lateral widening 25, one edge 25<sup>1</sup> of which has a sloping forward part. The rear edge of the widening forms the locking shoulder 26. In the other casing the slot 27 has a rearward widened part 28 which merges along a sloping edge 29 into a forward straight narrow part 30. As regards the effect it is immaterial which of the two slots is in the stationary outer casing and which in the rotary casing.

In the constructional form shown in Figure 1 of the parent Specification it is also possible to provide the straight slots in the rotary casing and the shaped slots in the stationary casing. In order, in this case, to prevent the wider shaped slots being visible from the outside it is preferable to place the rotary casing around the outer casing. Such a constructional form, in which the rotary casing is returned into the locking position by a spring, is shown in Fig. 2.

The stationary casing 34 has four shaped slots to correspond to four lead holders. Each slot has a straight narrow middle part 35, a rear lateral widening 36 and forward lateral widening 37 with a locking shoulder 39. The rear widening 36 merges along a sloping edge 38 into the straight middle part 35. The left-hand edge of the slot opposite the shouldered widening is straight and not sloping.

On the stationary casing 34 is a rotary

[Price 1/-]

casing 41 which has four straight slots 40, each corresponding to the slots in the casing 34. Each slot 40 has at the top a widening 42 for the passage of the push knobs 43 of the lead holders. When the pencil has been put together, the widenings 42 are covered by a closing casing which is pushed over.

At the forward end of the casing 41 a spring tongue 44 is formed by a helical cut, the end of the tongue being fixed to the casing 34 by a screw 45. When the casing 41 is turned on the casing 34, the tongue 44 always draws the casing 41 back into the initial position in which the slots 40 are so positioned that a pushed forward sliding knob 43 is held by the locking shoulder 39, as shown in Fig. 1. The screw 45 also secures the casing 41 against axial displacement.

When a lead holder which is in the inoperative position is pushed forward by means of its push knob 43, the latter, sliding along the sloping edge 38 and held in the straight slot 40 of the casing 41, moves the said casing 41 to the side. The spring tongue 44 draws the casing 41 back into the initial position, as soon as the push knob of the lead holder which is moving forward has arrived in the widening 37. By this means this lead holder is locked in the operative position by the locking shoulder 39.

If, when one lead holder is being pushed forward another lead holder is already in the operative position, the push knob of the latter is forced during the first turning motion of the casing 41 out of the shouldered widening 37, being freed from the locking shoulder 39 and being jerked through spring action into the inoperative position.

In this constructional form as well as that in Fig. 1 the forward shouldered widening 37 of the slot in the casing 37 is longer than the push knob 43, so that the lead holder when in the position of use need project only very little out of the casing, but can be pushed out further for screwing the lead forward.

In the casing 34 is the slidable casing 48, on the front end of which lead holders

are suspended and which serves as a lead magazine. It is held in position by a member 47 which engages in an angled slot 46 of the casing 34.

In the constructional form shown in Figs. 3, 4 and 5 a separate return spring is provided for each lead holder. These springs 49 are disposed in tubes 50 and bear with their forward ends against the constricted forward ends 51 of the tubes and at the rear end against nuts 52 on the rear ends of bars 53 to which the lead holders are connected. The tubes 50 are suspended from cross-arms 54 which not only separate the tubes 50 but also limit the backward motion of the bar 53. The casings 55 and 56 are the same as the casings 34 and 41 shown in Fig. 2. They have similar slots to the latter, but these slots are omitted in Fig. 3 for enabling the lead holders to be more clearly shown.

Tension springs may be used in place of the compression springs 49.

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

1. A magazine lead pencil as claimed in Specification No. 474,736 in which the slots of one casing each have a forward widening with a sloping counter edge, the rear part of each slot being straight, while each slot of the other casing has a forward straight part and a sloping edge in its rear part.

2. A magazine lead pencil as claimed in Specification No. 474,736, in which the slots of one casing each have a forward widening with a straight counter edge and each of the slots of the same casing has a sloping edge in its rear part a spring being provided for turning the casings with respect to one another into the locking position.

3. The improvement in or modification of the magazine lead pencil as claimed in Specification No. 474,736, substantially as hereinbefore described with reference to the accompanying drawings.

Dated this 28th day of October, 1937.

MARKS & CLERK.

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

