

PATENT SPECIFICATION

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COMPLETE SPECIFICATION.



A Magazine Pencil.

I, KARL FEND, of No. 68—70, Westliche, 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 relates to a magazine pencil which differs from the known pencils by its novel feeding device.

According to the invention the feeding device consists of two telescoped sleeves, the outer one of which is lined on its entire length and inner circumference with a longitudinally fluted sleeve, the inner sleeve being guided in the fluted sleeve with a short sleeve part, rivetted on the rear end and correspondingly fluted, a lead magazine being provided inside the inner sleeve and soldered on the rear edge of the outer sleeve by an intermediate ring. A screw threaded part is arranged on the front end of the inner sleeve, which is movable in an internally screw threaded sleeve in the front part of the pencil case and carries a feed pin which has a reduced diameter portion at its rear end, with longitudinally movable lead holding sleeve engaging behind the shoulder of said feed pin, for which holding sleeve a stop is provided in the pointed guide.

The advantage of the new magazine pencil consists in the reliable guiding of its movable parts, as both the fluted guides of the removable sleeve as also the screw threaded part and the screw threaded sleeve have comparatively large guide surfaces. Moreover the arrangement of the guiding of the extensible sleeve enables the accommodation of a large lead magazine. By the arrangement of the longitudinally movable sleeve on the feed pin it is possible, to also pull back the lead and to automatically eject the worn piece of lead.

An embodiment of the invention is illustrated in the accompanying drawing in which:

Fig. 1 shows a pencil in longitudinal section,

Fig. 2 being a cross section on line A—A of Fig. 1.

[Price 1/-]

The case *a* of the pencil is filled at its front conical end *b* with a conical part *c*, having a central bore *d*, which is internally screw threaded in the front portion *e*. The conical part *c* is fastened in the end *b* of the casing by a guide piece *f* for the lead point screwed into the screw threaded portion *e*. A sleeve *g*, which accommodates the feeding device and is soldered on the case *a*, is mounted on the recessed rear end of the conical part *c*. A screw threaded sleeve *h* is soldered in the front portion of this sleeve *g*. The movable part of the feeding device consists of two telescopable sleeves *i* and *k*, the outer sleeve *i* of which is lined with a longitudinally fluted sleeve *m*, whereas the inner sleeve *k* has on its rear end a short fluted sleeve *n*, corresponding to the inner diameter of the fluted sleeve *m*, so that the two extensible sleeves *i* and *k* are rotatable in common through the engagement of the fluted parts *m*, *n*. The front edge of the outer sleeve *i* is inwardly flanged and grips over the inner sleeve *k*. The outer sleeve *i* is rivetted through a spacer ring *o* on its rear end to a magazine *p*, which projects into the hollow space of the inner sleeve *k*. The lead magazine *p* is covered by a cap *q* screwed on the outer sleeve *i*, which cap may be utilised for carrying an india rubber in a cavity in its cover plate. In the front end of the inner sleeve *k* a screw threaded part *r* is soldered, which engages with the screw sleeve *h* and carries a tapered feed pin *t* with a reduced diameter portion *s* at its rear end. On this feed pin *t* a lead holding sleeve *u* is longitudinally movable, the rear end *v* of this sleeve being pressed around the reduced part of the feed pin *t* so that it cannot be pulled out. In extended condition the front end of the lead holding sleeve *u* projects beyond the feed pin *t*, so that a lead *w* can be inserted. By turning the cap *q* the sleeves *i* and *k* are rotated, so that the screw part *r* is screwed forward or backward in the screw threaded sleeve *h* and the lead *w* advanced or withdrawn accordingly. The lead holding sleeve *u* moves in the corresponding large bores *d* and *x* of the conical part *c* and in the rear part of the pointed

guide *f*. A bore *y* narrowed to the diameter of the lead *w* is provided in the front part of the pointed guide *f*, and the shoulder *z* thus formed serves as stop for the front end of the lead holding sleeve *u*, from which, on further turning the feeding device, the rest of the lead *w* is ejected by the advancing feed pin. If it is desired to construct the magazine pencil for using longer leads, three or even four telescopic sliding sleeves may be provided instead of two.

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.—Magazine pencil, characterized in that the rotatable feed device has two or more telescopic extensible sleeves *i*, *k*, rotatable in common.

2.—Magazine pencil as claimed in claim 1, characterized in that the outer extensible sleeve *i* is lined with a longitudinally fluted guide sleeve *m*, and the inner extensible sleeve *k* is longitudinally movable in the guide sleeve *m* by means of a short sleeve part *n*, also longitudinally fluted mounted on the rear end of the extensible sleeve *k*.

3.—Magazine pencil as claimed in claims 1 and 2, characterized in that inside the inner extensible sleeve *k* a lead magazine *p* is arranged and connected by means of a spacer ring *o* with the rear end of the extensible sleeve *i*, provided in known manner with a screwed-on cap *q*.

4.—Magazine pencil as claimed in claims 1 to 3, characterized in that the inner extensible sleeve *k* has on its front end a screw threaded part *r*, which engages in a screw thread sleeve *h* in the front end of the pencil casing *a* or in a sleeve *g*, lining said casing, and carries the feed pin *t*.

5.—Magazine pencil as claimed in claims 1 to 4, characterized in that on the feed pin *t* reduced at its rear end *s* by a shoulder a lead holding sleeve *u*, gripping behind this shoulder, is longitudinally shiftable, said sleeve bearing against an abutment *z* in the front end of the bore *x* of the pointed guide *f*.

Dated this 2nd day of July, 1930.

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

