PATENT SPECIFICATION

Application Date: Feb. 3, 1923. No. 3278/23. **210,979**

Complete Left: Oct. 27, 1923.

Complete Accepted: Feb. 14, 1924.

PROVISIONAL SPECIFICATION.

Improvements in Pencil-cases.

We, S. MORDAN AND COMPANY, LIMITED, a British company, Manufacturers, of 41, City Road, London, E.C. 1, and EDWARD NORRIS, a British subject, of 1, Columbia Road, Hackney Road, London, E. 2, Pencil-case Maker, do hereby declare the nature of this invention to be as follows :—

This invention relates to pencil-cases of the propeller type.

In this type of pencil case, when the lead is exhausted and the propeller is at the end of its travel, the said propeller has to be wound back, or screwed back, before a fresh lead or "refill" can be inserted, and this not only occasions loss of time, but causes wear on the parts.

Now, the object of this invention is to remedy these disadvantages by so constructing the pencil-case that the propeller can be readily got at, and quickly returned within the case, without any winding or screwing back being necessary.

To this end, and according to a convenient arrangement, the lead propeller is carried in an internally threaded guide-tube, made in halves and hinged together longitudinally, they being normally kept closed by the usual "point section" or nozzle. A cylindrical screw nut or "propeller screw" is mounted on the propeller, advances along the outer surface of the propelling tube, and engages the threads on the halves of the guide-tube, so that when the pencil-case is revolved, in the usual manner, the propeller advances the lead (which is carried in the propeller tube) but which lead, when exhausted, and the "point section," or nozzle, withdrawn, allows the halves of the said threaded guide-tube to open out automatically, and so free the propeller, which can then be pushed back by hand, or allowed to fall back by gravity.

The halves of the internally threaded tube are pivotally mounted in supporting blocks, fixed within the pencil-case, to allow of the ready opening out while retaining the said tube in the pencil-case.

The "point section," or nozzle, is held in place by frictional contact with a short slotted tube, or sleeve, fixed to the fore part of the guide tube, the slit enabling the said tube, or sleeve to take up any slack, and so ensure a tight fit for the "point section," or nozzle, at all times.

Dated this 3rd day of February, 1923.

ERNEST DE PASS,
Chartered Patent Agent,
61—62, Chancery Lane, London, W.C. 2,
Agent for the Applicants.

COMPLETE SPECIFICATION.

Improvements in Pencil-cases.

We, S. MORDAN AND COMPANY, LIMITED, a British company, Manufacturers, of 41, City Road, London, E.C. 1, and EDWARD NORRIS, a British subject, of 1, Columbia Road, Hackney Road, London, E. 2, Pencil-case Maker, 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, reference being had to the accompanying drawings

[Price 1/-]

and to the letters and figures marked thereon, that is to say:

This invention relates to pencil-cases of the propeller type.

In this type of pencil-case when the lead is exhausted and the propeller is at the end of its travel, the said propeller has to be wound or screwed back before a fresh lead or "refill" can be inserted, and this not only occasions loss of time but causes wear on the parts, and fatigue to the user.

Now, the object of this invention is to remedy these disadvantages by so constructing the pencil-case that the propeller, after having been fully advanced, and the lead exhausted, can, be readily and quickly returned within the case without any winding or screwing back of the propeller being necessary, and this by the means hereinafter described.

And in order that the invention may be readily understood, we will now describe it fully with reference to the accompanying drawings, wherein:

Fig. 1 is an elevation of the improved pencil case in its complete form and in one of its natural sizes.

Fig. 2 is a longitudinal central section.

Fig. 3 is a longitudinal sectional elevation.

Fig. 4 shows the propeller and certain of its associate parts.

Fig. 5 is a detached view, in elevation, of the device hereinafter fully referred to and which contains the mechanism for carrying out the purpose in view.

Fig. 6 is a similar view to Fig. 5, but looking in the direction of the arrow Z (see Fig. 5).

Fig. 7 is an elevation of the propeller removed from its guide tube.

Fig. 8 is a plan of Fig. 6.

Fig. 9 is a similar view to Fig. 8, but with the parts detached.

Fig. 10 is an interior view of a part of the aforesaid guide tube, and

Fig. 11 is a transverse section taken on the line x, x of Fig. 6.

The Figs. 2 to 4, both inclusive, are drawn to a larger scale than Fig. 1, and Figures 5 to 11 are drawn to a still larger scale.

In these drawings, a is the body of the pencil-case, b the "point section" or lead-nozzle, c the magazine for spare leads, and c^1 its screw-cap.

Referring now more particularly to Figs. 2, 3 and 4, d is the tube which carries the lead, and in which the propeller e works, the said propeller being, for the purpose of the invention, provided at its rear or inner end with a fixed externally screw-threaded cylindrical nut e^1, by means of which it is advanced, the nut being slidable on the tube d, which is slotted for the purpose of preventing rotation of the propeller.

Surrounding the tube d, is an enlarged outer member or guide tube, formed substantially in halves, or sections, f, f^x, longitudinally, and screw threaded internally to engage the cylindrical nut e^1. Each half or section of this guide tube terminates, as clearly shown in Figs. 2 and 10, at its forward end, in a pintle or pivot pin f^1, and at its rear end, in a similar pintle or pivot pin f^2. These halves or sections further terminate, at their forward or outer ends, in projections f^3, f^4, which, being somewhat of a springy nature, act as jaws for the purpose hereinafter pointed out. The pintles f^1, f^2, of this guide tube are supported in blocks or collars, g, g^1, which form bearings therefor, these collars being, for this purpose, provided with holes g^2 (see Fig. 9) in which the halves or sections of the guide-tube are free to swing on their pivot pins, so that the propeller may be readily returned prior to inserting a fresh lead. The collar g is fixed by solder to the interior of the body portion or sheath a of the pencil-case, as seen in Figs. 2 and 3, and turns with it, when this portion a is revolved relatively to the nozzle to operate the mechanism or "action" to advance the lead. The collar g^1 is free to revolve with the guide-tube, and is merely held by frictional contact against the interior of the said body portion, and bears upon a collet, or stud k, fixed by a pin to the bottom of the tube d.

The parts being assembled and introduced into the pencil-case, with the jaws f^3, f^4 protruding beyond the body portion a of such case, as clearly seen in Figs. 3 and 7, the "point-section" or nozzle b, is fitted on, so impinging against these jaws, and by drawing them towards each other, bring the propelling nut e^1 into engagement with the screw threaded portions f, f^x, of the divided tube, so that the lead propeller e can then be advanced by rotating the portion a, and propel the lead. On removal of the nozzle, the jaws fall open automatically, or may be assisted by a spring.

The nozzle b is held by frictional contact securely in place against a short slotted sleeve d^1 fast on the tube d, and said nozzle is provided internally with a packing, such as a conical tube h of ebonite (see Figs. 2 and 3), the slit in the sleeve enabling this tube to take up any slack and so ensure a tight fit for the nozzle.

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 pencil-case of the propeller type so constructed that the outer member of the propelling mechanism is elongated and is retained in operative engagement with the propeller by the " point section " or nozzle, and can be readily released therefrom by the removal of the nozzle so that the propeller, after having been fully advanced, can be returned for the purpose of inserting a fresh lead, and without any winding or screwing back of the said propeller being necessary.

2. In a pencil-case of the propeller type, the means for bringing about the purpose set forth, comprising, in combination, a lead-holding tube, a propeller adapted to work therein and provided with a cylindrical screw-nut, and a guide tube formed substantially in halves or sections, longitudinally, the halves or sections being pivotally mounted and enclosing the aforesaid parts, said guide-tube being threaded internally to engage the screw nut and so operate the advance of the lead by the propeller, on the outer case or sheath being revolved.

3. In a pencil-case of the propeller type, the internally threaded guide-tube having its halves or sections formed at their forward and rear ends with pivot pins to permit of their opening automatically (for the purpose of returning the propeller), the said halves or sections terminating at their forward ends in projections which act as jaws and bring the threaded cylindrical nut into engagement with the internally threaded guide-tube.

4. The improved pencil-case having its parts constructed, arranged and combined to operate substantially as hereinbefore described with reference to, and as shown in, the annexed drawings.

Dated this 27th day of October, 1923.

ERNEST DE PASS,
Chartered Patent Agent,
61—62, Chancery Lane, London, W.C. 2,
Agent for the Applicants.

Redhill: Printed for His Majesty's Stationery Office, by Love & Malcomson, Ltd.—1924.

SHEET 1

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

Fig. 1.

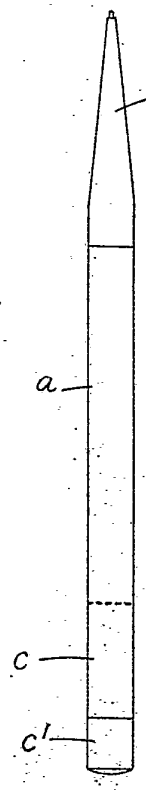


Fig. 3.

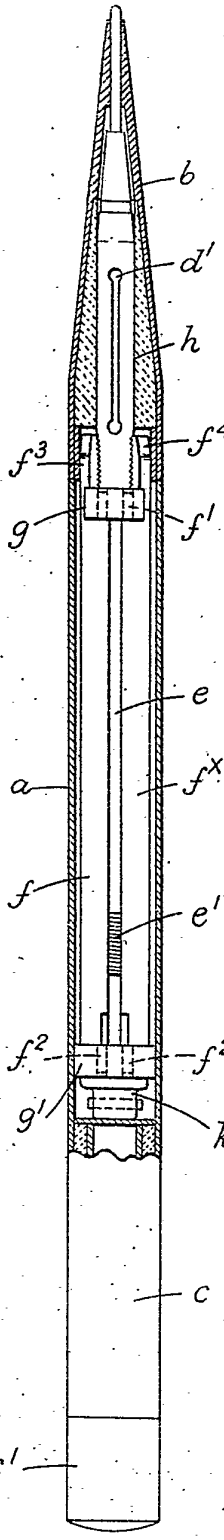


Fig. 2.

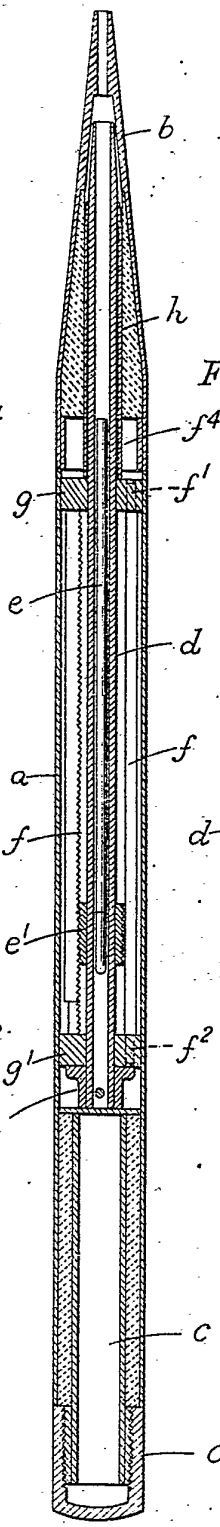
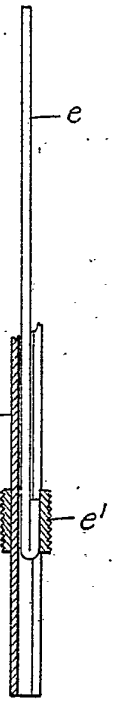


Fig. 4.



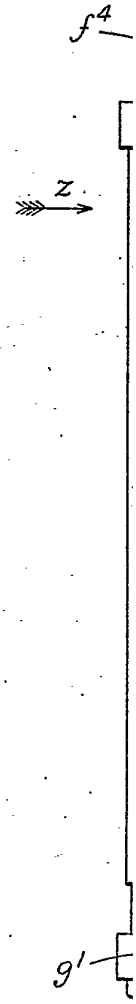


Fig. 5. Fig. 7. Fig. 6.

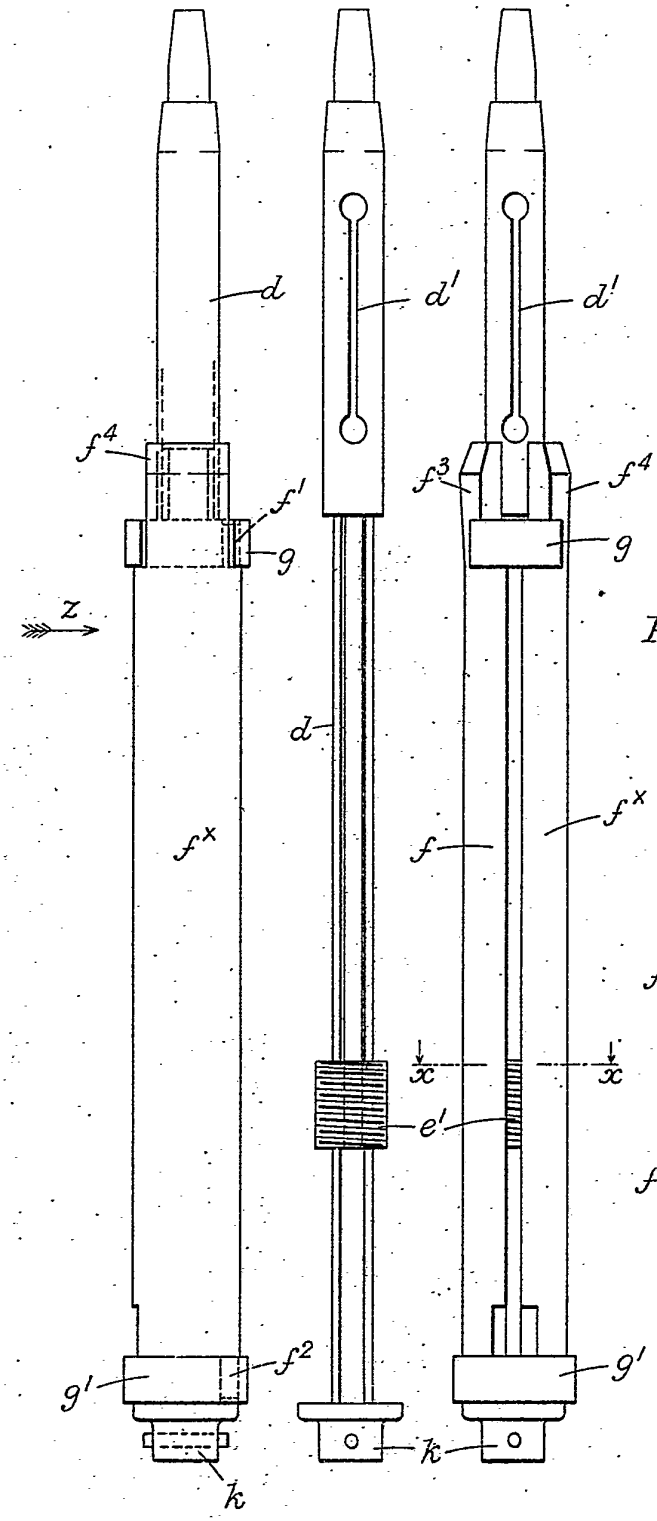


Fig. 8.

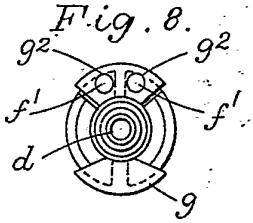


Fig. 11.

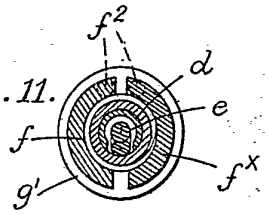


Fig. 9.

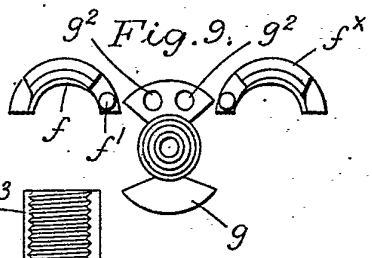
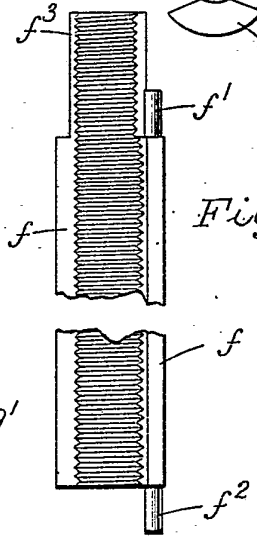


Fig. 10



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

Fig. 1.

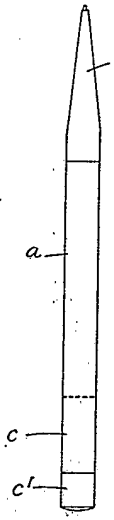


Fig. 3.

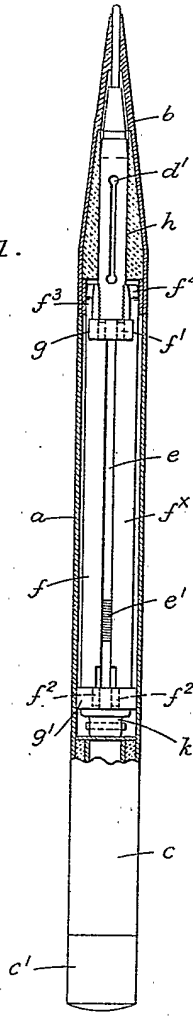
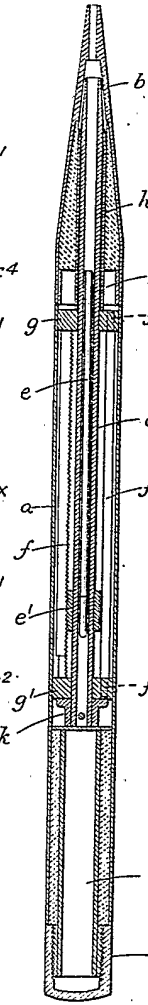


Fig. 2.



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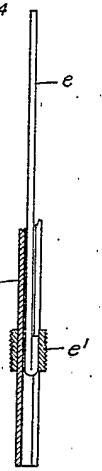

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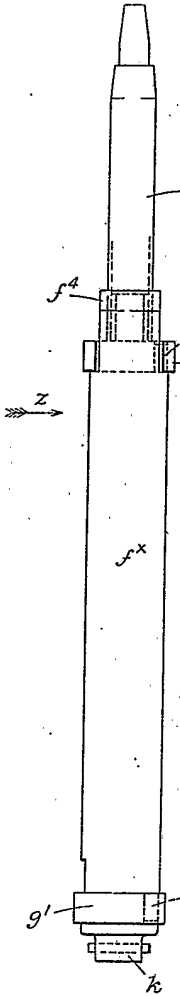


Fig. 7.

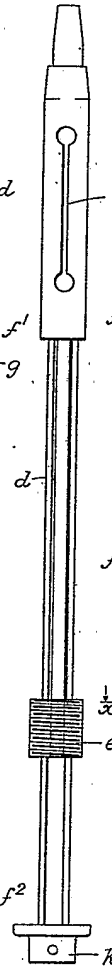


Fig. 6.

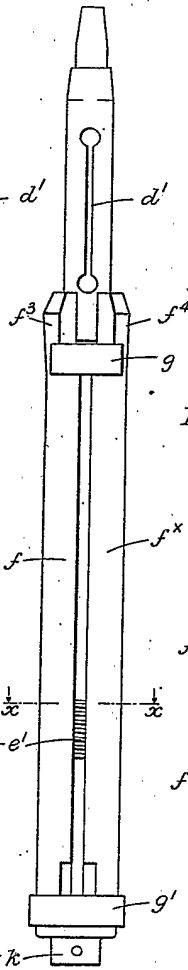
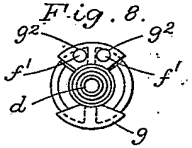


Fig. 8.



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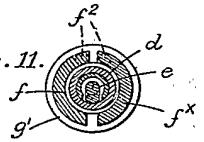


Fig. 9.

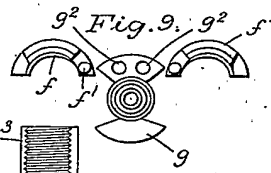
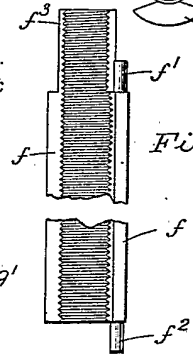


Fig. 10



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