

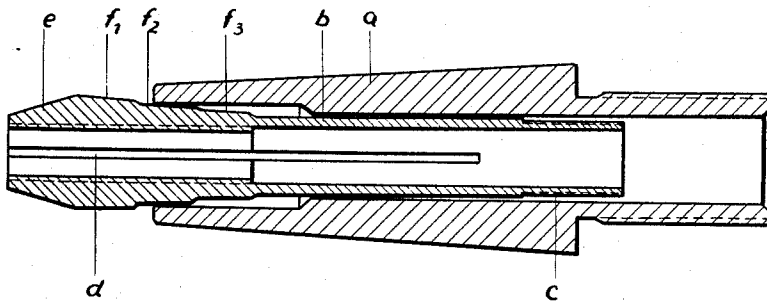
April 19, 1960

F. MATSCHKAL

2,933,065

GRIPPING MEMBER FOR PROPELLER PENCILS

Filed Dec. 24, 1957



INVENTOR

FRANZ MATSCHKAL

BY *P. M. Craig Jr.*

ATTORNEY.

1

2,933,065

GRIPPING MEMBER FOR PROPELLER PENCILS

Franz Matschkal, Nurnberg, Germany, assignor to
J. S. Staedtler, Nurnberg, Germany, a firm

Application December 24, 1957, Serial No. 705,018

Claims priority, application Germany December 24, 1956

2 Claims. (Cl. 120—21)

The invention relates to a longitudinally split gripping member for propeller pencils. The object is to construct such a gripping member so that it is capable of holding leads of different thicknesses.

Gripping members are already known which are capable of clamping leads of different thicknesses. These gripping members have a relatively steeply tapering clamping cone which is frequently curved. Such gripping members do not however give satisfaction because the cone does not exercise sufficient clamping effect such as is necessary to afford the lead the necessary hold and prevent it from turning when a mechanical pencil sharpener is used.

The longitudinally split gripping member for holding leads of different thickness, according to the invention, is characterized in that it possesses an external conical surface tapering in steps.

The proposal according to the invention is put into practice by using a stepped flat angle external cone surface, the steps of which all form the same angle with the axis of the member.

A gripping member constructed according to the invention can be adjusted to leads of any thickness. The lowermost or one of the upper steps of the external conical surface is brought into use according to the actual diameter of the lead. Due to the flat angle of all the cone steps a reliable clamping effect is ensured.

A gripping member according to the invention and the appropriate part of a pencil used in connection therewith are illustrated in longitudinal section by way of example in the only figure of the accompanying drawing.

A tubular gripping member *b* fits in the front part *a* of the pencil and is connected with a lead grinding tube or the like by a screw thread *c*. The gripping member is divided into a suitable number of cheeks by several longitudinal slits *d*, one of which is shown.

The head piece *e* of the gripping member *b* has an external conical surface. This surface is, according to the invention, divided into several steps; in the example

2

illustrated there are three steps designated by f_1 , f_2 and f_3 , these being connected by shoulder means.

The angle of the external conical surface to the axis of the cone is very small as can also be seen from the drawing. The three steps f_1 , f_2 and f_3 all taper at about the same angle in relation to the axis of the gripping member.

The diameters of each step are adapted to the usual commercial standard sizes of leads. Therefore it is possible with a gripping member according to the invention to clamp leads of as many different thicknesses as there are conical steps.

I claim:

1. In a propeller type lead pencil having a tubular front member, means for gripping cylindrical leads of different cross sections comprising a lead gripping tube received in said front member, said tube comprising a head piece protruding from the forward end of said tubular front member, said tube having a plurality of longitudinal slits therein extending through said head piece, said tube and said front member being adapted to assume a plurality of cooperative relationships, said relationships being dependent upon the cross section of the lead to be gripped, said head piece having thereon a plurality of conical surfaces of different diameters and inclined at substantially identical angles to the axis of said tube, said conical surfaces being successively disposed on said headpiece in the axial direction thereof shoulder means connecting said conical surfaces, said headpiece being movable between positions in which different respective ones of said conical surfaces are in engagement with the inner periphery of said forward end of said tubular front member in dependence upon the assumption of respective ones of said cooperative relationship, only one of said conical surfaces being in engagement with the inner periphery of said forward end of said tubular front member when said tube and said front member are in a respective one of said relationships.

2. In a propeller type lead pencil having a tubular front member, the combination according to claim 1, wherein said plurality of axially spaced conical surfaces is constituted by three of said surfaces.

References Cited in the file of this patent

UNITED STATES PATENTS

D. 28,838	Fairchild	June 14, 1898
1,606,909	Wahl	Nov. 16, 1926
1,745,226	Meyer	Jan. 28, 1930
2,312,136	Van Triest	Feb. 23, 1943

FOREIGN PATENTS

F 13,584 X/70a	Germany	Aug. 9, 1956
----------------	---------	--------------