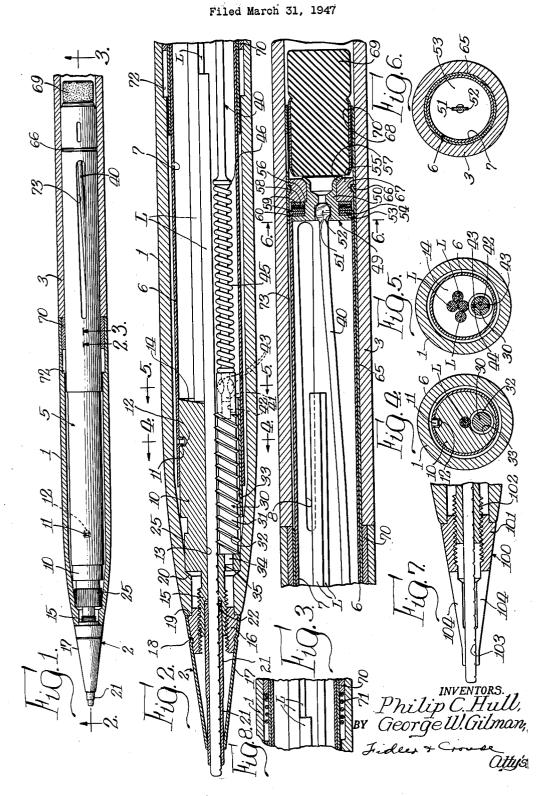
MAGAZINE PENCIL WITH ROTARY LEAD PROPELLING MEANS



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MAGAZINE PENCIL WITH ROTARY LEAD PROPELLING MEANS

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1

Our invention relates to mechanical pencils and has to do particularly with a mechanical lead pencil of the type having a manually actuated feed mechanism for successively feeding leads from a lead-holding magazine to the writing end of the pencil and for adjustably projecting the lead from the writing tip of the pencil in exposed writing position.

An object of our invention is to provide an improved mechanical pencil of the foregoing 10 character.

Another object is to provide a continuous feed type of mechanical pencil having a lead-supporting and guiding mechanism which permits the lead to yield upon the application of excessive 15 writing pressure thereon and thus prevents break-

age of the lead. Another object is to provide a simple and positive drive mechanism of novel construction for connecting an on-center actuating member rotatable about the axis of the pencil with an offcenter lead-propelling element engageable tangentially with a lead movable in a lead guide ex-

tending along the axis of the pencil.

Another object is to provide a mechanical pencil of the continuous feed type having novel means for retaining the lead feed mechanism in any position to which it is manually adjusted, thereby preventing undesired actuation of the feed mechanism.

A further object is to provide a mechanical 30 pencil of the type having a lead magazine and a continuously adjustable feed mechanism associated therewith, which pencil is simple in construction, positive in operation, and wherein the lead feed mechanism is compact in construction and occupies a minimum of space within the pencil.

Still another object is to provide a mechanical pencil of the continuous feed type wherein the lead is held in the pencil and prevented from dropping out even when broken within the pencil.

Another object is to provide a continuous feed type of pencil wherein the lead magazine and lead feed mechanism are formed as a unit which may be readily removed from and replaced in the 45pencil housing or casing.

Other objects and advantages of our invention will appear from the following description taken in connection with the appended drawings wherein:

Figure 1 is a fragmentary, longitudinal view of a pencil embodying our invention, with the casing section sectioned to show the interior construction:

sectional view taken along line 2-2 of Fig. 1 and showing the forward portion of the pencil;

Fig. 3 is an enlarged fragmentary, longitudinal sectional view taken along line 3-3 of Fig. 1

Fig. 4 is a transverse sectional view taken along line 4-4 of Fig. 2;

Fig. 5 is a transverse sectional view taken along line 5—5 of Fig. 2;

Fig. 6 is a transverse sectional view taken along line 6-6 of Fig. 3;

Fig. 7 is a fragmentary longitudinal crosssectional view showing a modified form of frontend construction for a pencil constructed in accordance with our invention; and

Fig. 8 is a fragmentary sectional view showing a modified form of brake for preventing unwanted rotation of the actuating mechanism.

Referring more particularly to Fig. 1 of the drawings, the pencil comprises a casing or housing which may be of any suitable construction and which includes a barrel I open at both ends and having a tip 2 at its forward end, and a cap 3 adapted to be carried in position closing the rear end of the barrel I and enclosing a portion of the lead feed unit 5 now to be described.

The lead feed unit 5 is adapted to receive a plurality of writing leads therein and, upon appropriate manual actuation, to feed the leads successively therefrom to the writing tip of the pencil and to adjustably project a lead from the pencil in exposed writing position. The lead feed unit includes a casing 6 (Fig. 2) which preferably is of tubular form and which defines a magazine 7 adapted to receive a plurality of writing leads L. A charging opening which takes the form of an elongated slot 8 is provided in the side wall of the magazine casing 6 to permit the introduction of leads into the magazine.

The casing 6 carries at its forward end a screw housing or feeder body 10 which is telescopingly received in the forward end of the casing 6 and suitably secured therein, as by a detent (formed in the casing and entering a small socket 12 in the feeder body 10. The feeder body 10 is provided with a bore 13 providing a passage extending throughout its entire length and coaxial with the longitudinal center line of the barrel 1. The bore 13 opens into the magazine 7 to permit a lead to enter therein from the magazine 7 and serves as a lead guide passage to guide the lead toward the writing tip of the pencil and to maintain it in writing position. For the purpose of causing a lead to enter the lead guide bore 13 from the magazine 7, the rear end wall 14 of the feeder body 10 is formed concavely. Thus, whenever a lead is disposed in the magazine 7 and the rear end of the lead guide passage 13 is unobstructed by a lead therein, a lead in the magazine 7 will be guided into the rear end of the Fig. 2 is an enlarged fragmentary, longitudinal 55 lead guide passage 13 upon movement of the pencil into point-down position.

The lead feed unit 5 is mounted in the barrel I in a suitable manner and, preferably, is detachably secured therein for convenience in asand showing the rearward portion of the pencil; 66 sembling the pencil and for permitting removal

of the lead feed unit from the barrel for repair or replacement, in the event this should become necessary. To this end the feeder body 10 is formed with an externally threaded forward extension 15 adapted to be screwed into the tip 2.

The tip 2 in the embodiment illustrated in Fig. 2 is formed as a tapered shell 17 having an internally threaded bushing 16 secured therein as by an internal bead or a crimp 18. The bushing has a shoulder 19 adapted to abut the forward end of the barrel I when the tip is threaded onto the extension 15 and the barrel is formed with an internal shoulder 20 against which the forward end of the feeder body 10 abuts when the threaded extension 15 is screwed into the bushing 16. The tip 2 includes a lead guide sleeve 21 projecting forwardly out of the end of the tapered shell 17 and extending rearwardly for insertion in a socket 22 in the feeder body extension 15. The sleeve 21 is disposed in axial alignment with the passage 13 in the feeder body 15 and forms with the latter a lead guide and support of substantial length, thereby providing a firm and continuous support for the lead throughout a substantial portion of its length. The sleeve 21 is of such internal 23 diameter as to snugly receive and frictionally grip the lead L therein sufficiently to prevent the lead from turning therein, or from dropping out of the pencil under certain conditions hereinafter explained.

The lead feed unit 5 is secured against rotation in the barrel in a suitable manner, preferably by knurling the periphery of the forward portion of the feeder body which thus bites into the material of the casing I when the feeder body is drawn into its forward position by screwing the

tip 2 thereon.

A lead feed or driving mechanism is provided for advancing a lead through the lead guide and into writing position with the forward end of the lead projecting from the forward end of the lead guide sleeve 21, where the lead is exposed for writing. This mechanism also is effective to adjustably project or retract the lead in the lead guide to permit the user to adjust the length of the end which projects from the writing end of the pencil. The feed mechanism is adapted to be operated manually to feed lead successively from the magazine whereby leads may be fed continuously so long as any leads remain in the magazine. The feed or driving mechanism includes a feed or drive screw 30 which takes the form of a worm and preferably is formed with a cylindrical body 31 having a raised helical screw thread 32 formed thereon the outer edge of which is sharpened 55 and adapted to bite into a lead in the lead guide. The feed screw 30 is rotatably supported in a socket 33 in the feeder body 10 extending parallel to and opening into the passage 13 and has a stud shaft 34 at its forward end which is journalled in a bearing 35 formed in the forward portion of the feeder body 10. The feed screw socket 33 is so formed that when the feed screw is disposed therein, the threads 32 enter the passage 13 sufficiently to engage substantially tangen- 65 tially against and bite slightly into a lead L in the passage 13, whereby when the feed screw 30 is rotated it effects a corresponding axial movement of the lead L in the lead guide. The thread 32 terminates inwardly short of the rear end of 70 the body of the screw 30 to permit a lead to enter the passage 13 without interference whenever the rear end of this passage is free of any lead.

The feed screw 30 is adapted to be rotated be formed of fiber, interposed between the spring by a driving rod or shaft 40 having at its forward washer 58 and the casing flange 54 and the

end 41 a plurality of laterally extending driving lugs 43. The forward end 41 of the driving shaft 40 is received in a socket 42 in the rearward end of the feed screw 30 which socket has diametrically opposed slot portions 44 to accommodate the lugs 43. This construction provides a positive driving connection between the driving shaft 40 and the feed screw 30 but at the same time permits relative axial movement between the feed screw 30 and driving shaft 40.

4

The feed screw 30 is mounted for rearward sliding movement on the driving shaft 40 and is resiliently urged forwardly and maintained in its normal operating position by a spring 45 carried on the rod 40 and abutting a flange 46 formed on the rod 40. The spring 45 is of sufficient strength to maintain the feed screw 30 in its forward position (as shown in Fig. 2) under all normal conditions, and prevents rearward displacement of the feed screw 30 when normal writing pressure is applied to a lead L in the lead guide. However, whenever such an excessive force is applied to the lead in a direction inwardly of the pencil as would cause the lead to be broken if the lead were held rigidly, the spring yields and permits the feed screw 30 and the lead engaged thereby to move inwardly. Thus, while the pencil maintains the lead firmly in projected position, the lead is permitted to retract into the pencil upon the application of an excessive force thereon and the lead will not be broken nor the feeding mechanism damaged when such excessive force is applied.

The driving shaft 40 extends rearwardly in the magazine 7 and is connected at its rear end with a driving head 49 by which the shaft 43 may be rotated. For this purpose the driving rod is formed with a flattened head 5! which is received in a slot-like socket 52 formed in a in driving plug 50 forming an element of the driving head. The driving plug 50 is positioned in the rearward end of the casing 6 by a flange 53 formed on the plug 50 and fitting snugly in the casing 6 and by an inturned flange 54 formed at the rear end of the casing 6, as by spinning over the end of the casing 6. A retaining or driving head washer 55 is secured on the driving plug 50 and held against a positioning shoulder 56 thereon by a riveted head 57 formed on the plug 50. The retaining washer 55 thus is held in driving relation with the driving plug 50, whereby, upon rotation of the retaining washer 55, the driving head 50 is rotated to rotate the driving rod 40.

It will be seen that the driving shaft 40 is connected to the driving plug 50 and to the feed screw 30 substantially at the axes of rotation of the two latter members, which axes are laterally displaced from each other, and consequently the two ends of the drive shaft 49 rotate about substantially parallel but offset axes. However, the driving shaft 40 is sufficiently flexible that the shaft may be rotated without binding.

Means are provided for resisting rotation of the driving head 49 sufficiently to prevent undesired rotation thereof and to retain it in any position to which it is manually rotated. Thus the lead may be held in any position to which adjusted by the feed mechanism. For this purpose a braking clutch is provided between the driving head and the casing, which clutch includes a spring washer 58, preferably formed from metal, and bearing washers 59, which may be formed of fiber, interposed between the spring washer 58 and the casing flange 54 and the

1

retaining washer 55, respectively. A third bearing washer 60, which may be similar to the washer 59, is interposed between the driving plug flange 53 and the casing flange 54. The spring washer 58 exerts sufficient thrust against the adjacent washers to effect a drag or braking action on the driving plug and retaining washer and thus prevents the driving head 49 from rotating except upon the application of a predetermined rotating force.

An eraser cup holder 65, which takes the form of an elongated tube 65, is telescopingly mounted on the casing 6 and is secured against axial displacement by attachment to the retaining washer 55 by crimping it, as at 66, into a peripheral 15 groove 67 formed in the retaining washer. The eraser tube 65 extends rearwardly to provide a socket for a cup 68 carrying an eraser 69, the eraser cup 67 being retained removably in the holder by an inturned rim 70 which permits removal of the eraser and its cup 68 for replacement when the eraser becomes unusable.

The eraser tube 65 extends forwardly along and in telescoping relation over the casing § and into the barrel I, the latter being provided 25 adjacent its rearward end with a bushing 70 force-fitted into an enlarged portion 72 of the bore of the barrel I and which snugly receives the eraser tube 65 and prevents the entry of end thereof. The eraser tube 65 extends throughout the entire portion of the casing & which projects beyond the rearward end of the barrel and thus serves to reinforce and strengthen this portion of the casing against damage. Moreover the eraser tube 65 serves to enclose the clutch between the retaining bushing 55 and the retaining plug 59 and prevent the entry of foreign matter such as dust or dirt.

The eraser tube is provided with an elongated 40 lead opening 73 adapted to register with the lead opening 8 in the casing 6 when the eraser tube is rotated into an appropriate position, thus permitting a lead or a plurality of leads to be inserted through the two registering openings and 45

into the magazine 7.

The rear cap 3 which may be of any desired form is adapted to be telescoped over and retained on the eraser tube 65 frictionally and the friction fit between these members is made suffi- 50 ciently snug so that, upon rotation of the end cap 3, the eraser tube is rotated to actuate the lead feed mechanism with which it is associated. Thus, actuation of the lead feed mechanism to feed the lead from the magazine and to adjust 55 the position of a lead relatively to the writing end of the pencil may be effected by turning the rear end cap 3.

When it is desired to charge the pencil with leads, the end cap 3 is slid rearwardly a distance 60 sufficient to expose the charging opening 73 or, if desired, is entirely removed. The eraser tube 55 is rotated to bring the opening 73 into registry with the opening 8 whereupon the desired number of leads may be inserted into the magazine 7. Upon the pencil being moved into pointdown position, the forward ends of the leads are guided by the end wall 14 of the feeder body 10 toward the rearward end of the lead feed passage 13 and one of the leads enters this opening and the forward end of such lead engages the rearward turn of the helical thread 32. Rotation of the eraser tube 65, effected either by grasping the tube itself and turning it manually, or by

causes the retaining bushing 55 and the driving plug 50 to be rotated and to rotate the driving rod 40 which in turn drives the feed screw 30. As the feed screw 30 is rotated, the successive portions of the thread 32 are brought into tangential engagement with the lead L in the lead guide passage 13 and bite into the lead slightly to cause it to be advanced through the lead guide passage 13. Further rotation of the feed mechanism pro-10 pels the lead through the sleeve 21 and out through the end of the pencil where the lead is exposed for writing. The feed mechanism may be rotated appropriately to adjust the extent of exposure of the lead, as will be understood.

Continued rotation of the cap causes the lead L which is in the lead guide to be propelled forwardly until the rear end of the lead passes beyond the rear end of the lead guide passage 13, whereupon another of the leads in the magazine 7 is guided into the rearward end of the lead guide passage 13 and the forward end of such lead abuts the rearward end of the preceding lead. Upon still further rotation of the feed mechanism, the second lead is engaged by the thread 32 and propelled forwardly. Inasmuch as the second lead is in abutment with the preceding lead, it serves to propel the latter when the rear end of the latter is move forwardly of the forwardmost turn of the thread 32. Thus it will be seen that foreign matter into the barrel through the rear 30 there is no interruption in the feed and the leads are successively fed from the magazine 7 and propelled through the lead guide and out through the forward end of the pencil.

The sleeve 21 is of such diameter that it re-35 ceives the lead snugly and provides a firm support for the lead during writing. Moreover the sleeve 2! is adapted to grip the lead sufficiently to prevent the lead from dropping out of the pencil when the lead is propelled to such a position that its rear end is forwardly of and is no longer engaged by the feed screw 30. Moreover, in the event that a lead in the lead guide should become broken at a point forwardly of the feed screw, the sleeve 21 will retain the forward and separated portion of such lead in the pencil until propelled out of the sleeve by operation of the

feed mechanism.

Certain modifications may be made in the construction without departing from the invention as will be apparent to those skilled in the art. For example, instead of providing a guide sleeve in the tip, as shown in Figs. 1 and 2 of the drawings, the tip may be formed as illustrated in Fig. 7, to which reference now is made. The tip 100 may be of conical form with a body 101 internally threaded and adapted to be screwed onto a projection 102 of the feeder body in a manner somewhat similar to that described above. However, the tip 100 is of unitary construction and is provided with a bore 103 through which the lead extends, the walls of the bore 103 being adapted to grip the lead and frictionally retain it in position. The tip is slitted at its forward end to provide cooperating jaws 104 which are sufficiently resilient to cause the lead to be held securely against turning therein but which permit the lead to be propelled upon suitable actuation of the feeding mechanism. In addition, the jaws serve to retain a lead in the pencil after the lead has been propelled to a position forwardly of the feed screw, as well as to retain any lead which may be broken at a point forwardly of the feed screw.

In certain cases it may be desirable to employ replacing the cap 3 and turning it manually, 75 means other than the braking clutch above described for preventing unwanted rotation of the actuating mechanism. In such a construction the clutch may be eliminated and the driving plug 50 and washer 55 caused to grip the flange 54 sufficiently tightly to maintain these members against longitudinal displacement. For preventing unwanted rotation of the actuating mechanism, a braking spring 71 may be provided, as illustrated in Fig. 8. The spring 71 is received in the chamber 72 forwardly of the bushing 70 and encompasses the eraser tube 65. The spring 71 is secured at one end of the bushing 70 and so arranged that it normally grips the eraser tube 65 to retain it and the associated actuating mechanism in any position to which it is adjusted 15 but, upon manual rotation of the eraser tube 65, uncoils sufficiently to permit the desired rotation

of the tube 65.

From the foregoing it will be seen that the present invention provides a mechanical pencil 20 of the magazine type wherein a plurality of leads may be inserted in the pencil and may be fed successively from the magazine and propelled into writing position by manual actuation of the feed mechanism. The feed mechanism not only is 25 adapted to permit continuous feeding of the leads until all of the leads in the magazine are exhausted, but also permits projection and retraction of a lead through the forward end of the pencil in order to permit adjustment of the 30 extent of projection of the lead from the writing end of the pencil, thereby permitting the user to project the lead to the extent which is most agreeable to him in writing. The lead feed is accomplished by a simple manipulation which is 35 similar to the manipulation of pencils for operating known types of feed mechanisms and, therefore, it is not necessary for the operator to learn any new or unusual type of manipulation. Moreover a single manipulation serves both to feed lead from the magazine and to adjust the position of the lead at the writing tip of the pencil, thereby providing an extremely simple operation. Since a relatively large number of leads may be inserted in the magazine at one time, 45 the charging and feeding of the lead requires substantially less total time than in the case where leads are individually inserted in the pencil each time a single lead is exhausted.

The yielding mounting of the driving screw 50permits the lead to retract into the pencil upon the application of excessive writing pressure and thus there is little likelihood of the lead breaking under such excessive pressure or the feeding mechanism being jammed or otherwise damaged by such excessive pressure. The mounting, however, so firmly supports the lead under normal writing pressure so that the user is not aware of the resilient mounting unless excessive pressure is applied.

We believe that the operation and advantages of our invention will be well appreciated from the foregoing description, and it is to be understood that, while we have shown and described several forms of our invention, other details 65 and arrangements of parts may be resorted to without departing from the spirit and scope of our invention as defined by the claims that follow.

We claim:

a lead guide fixed in said housing, a lead-propelling element, means mounting said propelling element for rotation in substantially tangential engagement with a lead in said guide and for displacement longitudinally of said housing, means 75 drive shaft connected in driving relation to said

resiliently opposing rearward displacement of said lead-propelling element in said housing and yieldable upon application of a predetermined, inwardly directed force on the lead in said guide, an actuating element mounted for rotation about the axis of said housing, and a rotatable drive element connected in constant and direct relation with said actuating element and said propelling element for rotation of all of said ele-

8

10 ments at the same angular velocity.

2. In a magazine pencil, a housing, means including a tubular side wall and a formed end wall defining a lead magazine in said housing, means including said end wall for guiding leads successively from said magazine to the writing end of the pencil, a lead-propelling element engageable with a lead in said guiding means and rotatable for moving a lead forwardly or backwardly at will, means mounting said lead-propelling element in said magazine for yielding displacement upon the application of a predetermined, inwardly directed force on a lead engaged by said lead-propelling element, an actuating element rotatable about the axis of said housing, and a rotatable driving element in said magazine connected in constant and direct driving relation to said actuating element and said lead-propelling element for rotation of all of said elements at the same angular velocity.

3. In a mechanical lead pencil having a casing and a lead guide for guiding lead axially of said casing, and a mechanism for propelling a lead in said guide including a rotatable propelling element positioned to engage substantially tangentially a lead in said guide, an actuating element carried by said casing and rotatable about the axis of said casing, a flexible rod operably connecting said actuating member and said propelling element, and means resiliently 40 positioning said propelling element in said casing and yieldable upon excessive writing pressure on a lead in said guide to permit the lead to move

inwardly relatively to said casing.

4. In a mechanical lead pencil having a casing and a lead guide in said casing, and a mechanism for propelling and retracting a lead in said guide including a lead-propelling element in said casing and rotatable about an axis parallel to the axis of the lead and engageable substantially tangentially with a lead in said lead guide, an actuating element carried by said casing rotatable about an axis parallel to but offset from the axis of rotation of said lead-propelling element, and a flexible driving element operably connected between said actuating element and said lead-engaging element, and means resiliently urging said lead-propelling element forwardly into normal position and yieldable upon excessive writing pressure on the lead to permit the lead to move inwardly relatively to said casing.

5. A mechanical pencil comprising a casing, a lead guide carried by said casing and having a lead passage substantially coaxial with said casing, a lead-propelling element having a helical thread, means mounting said lead-propelling element for rotation about an axis parallel to but displaced from the axis of said lead passage and for substantially tangential driving engagement between said thread and a lead in said passage, 1. A mechanical pencil comprising a housing, 70 said mounting means being yieldable to permit rearward displacement of said propelling element upon the application of excessive writing pressure on said lead, a driving element carried by said casing for rotation about the axis thereof and a axis thereof.

6. In a mechanical lead pencil having a casing and a lead guide in said casing, mechanism for propelling a lead in said guide including a propelling element positioned to engage substantially tangentially a lead in said guide, means mounting said propelling element for rotation and for axial displacement in said casing, means resiliently 10 urging said propelling element forwardly into position and yieldable upon the application of excessive writing pressure on a lead in said guide, an actuating element rotatable about the axis of said casing, a flexible rod, means connecting 15 said actuating element in driving relation to said rod, and means connecting said rod in driving relation to said propelling element and for relative axial sliding movement therebetween.

7. A mechanical pencil comprising a casing, a 20 magazine for a plurality of leads, lead guide means defining a lead passage extending from said magazine axially of said casing, a lead propelling element, means mounting said propelling element in said casing parallel to and offset from said lead 25 passage for substantially tangential driving engagement with a lead in said passage and for rearward yielding displacement upon the application of excessive writing pressure on a lead in casing for rotation about the axis thereof, and means including a flexible driving shaft in said casing connecting said driving element and said propelling element, and a brake between said drivwanted rotation of said driving shaft.

8. A mechanical pencil comprising a casing, a lead guide fixed in said casing, a lead-propelling element positioned to engage a lead in said lead guide, means resiliently mounting said lead-pro- 40 pelling element for rearward yielding movement relatively to said casing upon the application of excessive writing pressure on said lead, a manually operable driving element rotatable about the longitudinal axis of said casing, driving means 45 operably connecting said driving element and said lead-propelling element, and braking means engaging said casing for maintaining said driving means against unwanted actuation.

9. A mechanical pencil comprising a casing, a 50 lead guide fixed in said casing, a lead-propelling element positioned to engage a lead in said lead guide, means mounting said lead-propelling element for rearward yielding movement relatively to said casing upon the application of excessive writing pressure on said lead, a manually operable tubular member telescoped over the rearward end of said casing and rotatable thereon, and driving means operably connecting said tubular member and said lead-propelling element, and a braking 60 member and said lead-propelling element. element housed in said tubular member and engageable with said casing to maintain said driving means in any position to which it is manually adjusted.

10. A mechanical pencil comprising a casing, a 65 lead guide fixed in said casing, a rotatable leadpropelling element positioned to engage substantially tangentially a lead in said lead guide, means resiliently mounting said lead-propelling element for rearward yielding movement relatively to said 70 casing upon the application of excessive writing pressure on said lead, manually actuated driving means for actuating said lead-propelling element to project or retract a lead from said pencil, and

10

means engageable with a lead in said lead guide forwardly of said lead-propelling element for retaining the lead in said lead guide but permitting the lead to be projected and retracted in said

lead guide.

11. A mechanical pencil comprising a tubular casing, a feeder body carried at the forward end of said casing and having a lead guide passage extending axially therethrough, and a socket extending longitudinally in said feeder body parallel to and opening substantially throughout its length into said lead-guide passage, a lead-propelling element mounted in said socket for rotation about an axis parallel and offset from said passage in position to substantially tangentially engage a lead in said passage, a driving element rotatably mounted at the rearward end of said casing, and driving means connecting said driving element and said propelling element and including means resiliently urging said propelling element forwardly in said socket and yieldable to permit rearward movement of said propelling element upon the application of excessive writing pressure on a lead engaged by said propelling element.

12. A mechanical pencil comprising a barrel open at both ends, a lead-feeding unit secured in said barrel and including a casing fixed in the barrel and defining a lead magazine, a lead guide said lead guide, a driving element carried by said 30 secured in said barrel and leading from the magazine to the writing end of the pencil, a lead-propelling element engageable substantially tangentially with a lead in said guide, means mounting said propelling element for rotation to project or ing element and said casing for preventing un- 33 retract a lead in said guide and for displacement axially of said casing, spring means resiliently opposing rearward displacement of said propelling element and yieldable upon the application of a predetermined writing pressure on a lead in said guide, a sleeve telescoped over said lead magazine and rotatable in said barrel, and driving means including a shaft extending in said magazine connecting said sleeve and said propelling element for rotation of said propelling element when said sleeve is rotated.

13. A mechanical pencil comprising a housing, a lead guide in said housing, a lead-propelling element mounted in said housing for rotation about an axis parallel to a lead in said lead guide and in substantially tangential engagement with the lead, means for resiliently opposing rearward displacement of said lead-propelling element and yieldable upon the application of an excessive writing pressure upon the lead, a manually operable actuating member carried by said housing and rotatable about an axis parallel to but displaced from the axis of rotation of said leadpropelling element, and a flexible drive member connected in driving relation with said actuating

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