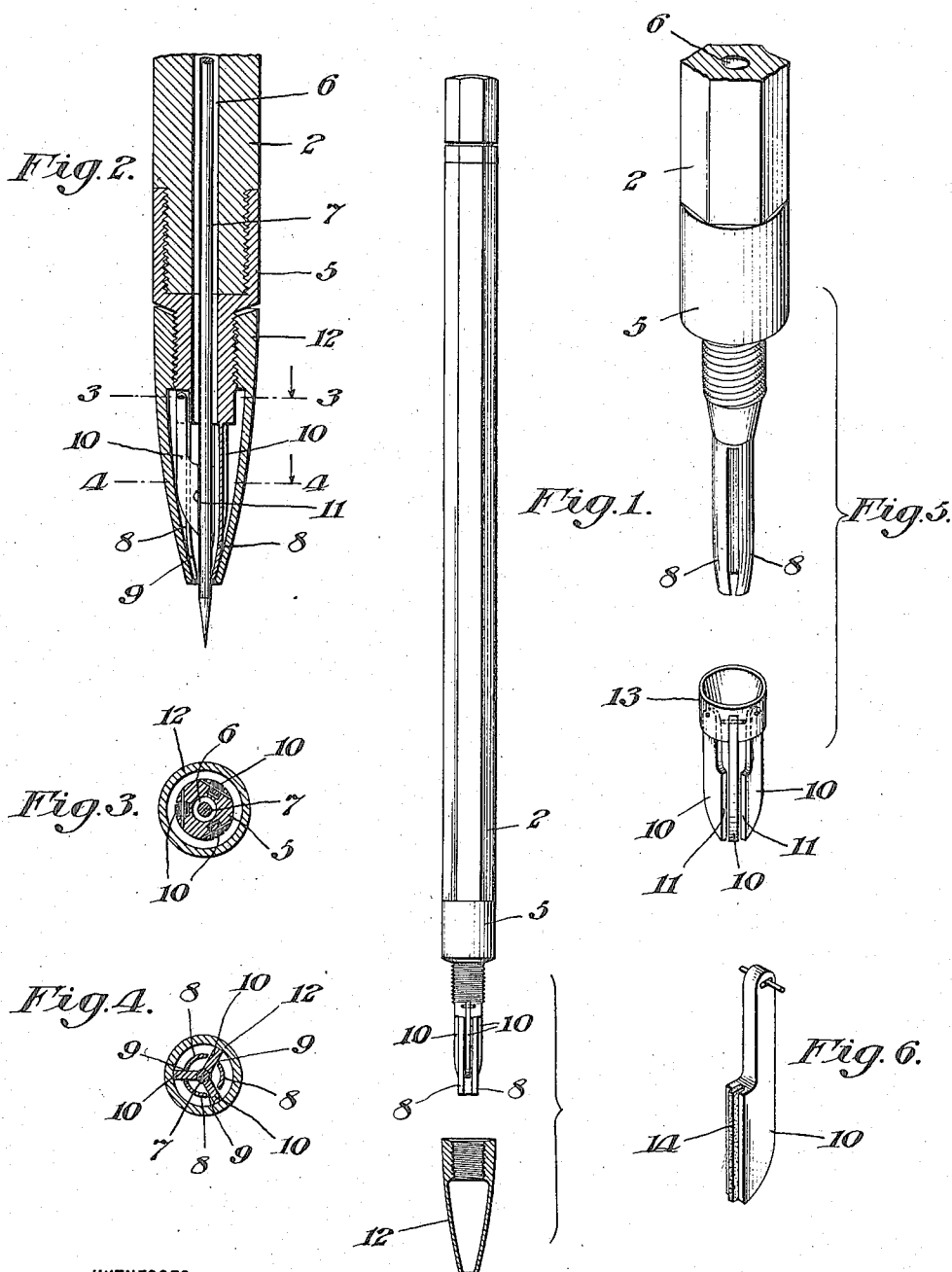


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PENCIL.
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1,144,069.

Patented June 22, 1915.



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PENCIL.

1,144,069.

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To all whom it may concern:

Be it known that I, RUDOLPH H. SCHLEICHER, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Pencils, of which the following is a specification.

My invention relates to that class of pencils in which the lead or other marking bar is longitudinally adjustable within a casing or body portion and in which clamping devices are provided to hold the marking bar in positions of adjustment, so that as the projecting point portion of the marking bar wears away, the bar may be adjusted to lengthen the projecting point portion or to present a new point portion.

In pencils of this character, difficulty has been experienced in securely holding the marking bar in positions of adjustment so as to prevent the bar from being forced back into the body of the pencil by the pressure on the point end of the bar when the pencil is in use.

The object of my invention is to overcome this objection; and I accomplish my object by providing a clamping device having, first, a clutch member provided with a clamping face parallel to the marking bar and bodily movable toward and from the bar in parallel relation thereto, secondly, having a pivoted clutch member held in place and guided between the side walls of a slot formed in a part of the pencil, thirdly, having a double clutch and a common means to operate both members thereof, fourthly, having a clutch member provided with a clamping face of yielding material to contact with the marking bar, and finally, having various novel features of construction and combinations of parts, hereinafter fully described and claimed.

In the drawings: Figure 1, is a side view of my improved pencil, showing the clamp-operating head in section and removed from the body of the pencil, Fig. 2, is a vertical section through the lower portion of the pencil. Fig. 3, is a transverse section, on line 3—3 of Fig. 2. Fig. 4, is a transverse section, on line 4—4 of Fig. 2. Fig. 5, is a perspective view of the lower end of a pencil and a part of a modified form of a clamping device removed therefrom. Fig. 6, is a perspective view of a clamping member hav-

ing a yielding face for contacting with the marking bar.

Referring first to Figs. 1, 2, 3 and 4 of the drawings, the body portion of the pencil comprises an upper elongated portion 2 constructed preferably of wood, and a lower part 5 constructed preferably of metal and screwed on to the bottom of the part 2, the parts 2 and 5 constituting, in effect a single piece. Extending centrally through the parts 2 and 5 is an opening 6 to receive the marking bar 7 which may be of lead, crayon or other suitable marking material, the bar 7 being freely movable longitudinally within the pencil.

Formed on the bottom of the part 5 are downwardly-extending spring fingers 8, constituting yielding clutch members, the lower ends of which are adapted to engage the marking bar 7. The clutch members 8 are spaced to form vertically-extending slots 9 therebetween; and arranged within the slots 9 are clutch members 10 having elongated clamping faces 11 arranged parallel to the marking bar 7 and adapted to engage and clamp the same. The upper ends of the clutch members 10 are connected to the body of the pencil or part 5 by pin and slot connections which permit the clutch members 10 to move bodily toward and from the marking bar 7 in parallel relation thereto.

Screwed on to the part 5 is the upper end of the clutch operating head 12, the lower portion of which is made hollow and tapered and incloses the clutch members 8 and 10. The relation of the clutch members 8 and 10 to the tapered inner face of the head 12 is such that when the head 12 is screwed upwardly upon the part 5, the inner face of the head 12 will engage both sets of clamping members 8 and 10 and force them inwardly in a manner to clamp the marking bar 7, and that when the head 12 is screwed downwardly upon the part 5, the clutch members 8 and 10 will release their grip upon the marking bar 7. It will thus be seen that an adjustable clutch device is provided for clamping the marking bar 7, and that the yielding spring action in the fingers or clutch members 8 will permit relative movement between the clutch members 8 and 10 and thereby permit the tapered head 12 to force both sets of clutch members 8 and 10 into firm gripping engagement with the marking bar 7.

The provision of the bodily movement of the clutch members 10 toward and from the marking bar 7 is an important feature of my invention as it enables the elongated clamping faces 11 to always adjust themselves into parallel relation with the marking bar 7 to firmly clamp the same.

The spring fingers 8 perform the double function of clutch members and a means to prevent lateral displacement of the main clutch members 10 under the tendency of the head 12 to twist the members 10 while turning in engagement therewith in operating the clutch device.

From the construction above described, it will be readily understood that by screwing the head 12 downwardly the clutch device will release the marking bar 7 and permit it to be adjusted to project its lower end below the bottom of the head 12 a suitable distance to form the marking point of the pencil, and that by screwing the head 12 upwardly, the clutch members 8 and 10 will be operated to firmly clamp the marking bar 7 in its position of adjustment.

In the modification shown in Fig. 5, the clutch members 10 instead of having their upper ends connected directly to the part 5, have their upper ends connected to a ring 13 which is adapted to be slipped over and surround the part 5.

In Fig. 6 I have shown the inner face of the clutch member 10 provided with a yielding pad 14 formed of suitable material and adapted to contact with the marking bar 7 and yield and thereby enhance the clamping action.

I claim:

1. In a pencil of the class described, a body portion having an opening therein to receive the marking bar, and means for

clamping the bar in different positions of adjustment, said means including a part surrounding said bar, and carrying a pin which extends transversely to a line radiating from the axis of said part, a clutch member having a radially extending slot therein through which said pin extends and a clamping face extending parallel to said bar and bodily movable toward and from said bar in parallel relation thereto, and means operative to move said member toward said bar.

2. In a pencil of the class described, a body portion having an opening therein to receive the marking bar, and means for clamping the bar in different positions of adjustment; said means comprising a double clutch device having two sets of independently-movable clutch members having clamping portions, the clamping portions of one set being spaced from the clamping portions of the other set longitudinally of the pencil, and means common to both members for moving them toward said bar.

3. In a pencil of the class described, a body portion having an opening therein to receive the marking bar, and means for clamping the bar in different positions of adjustment; said means comprising a double clutch device having two spaced independently-movable clutch members, and means common to both members for moving them toward said bar, one of said clutch members being a spring having a yielding action with respect to the other after being brought into contact with said bar.

In testimony whereof I affix my signature in presence of two witnesses.

RUDOLPH H. SCHLEICHER.

Witnesses:

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A. V. GROUPE.