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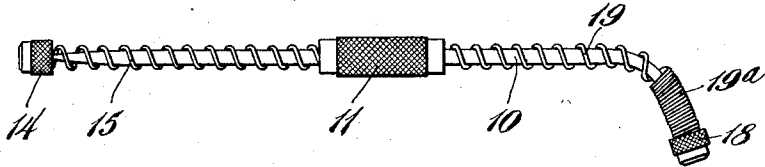
C. D. GILMORE

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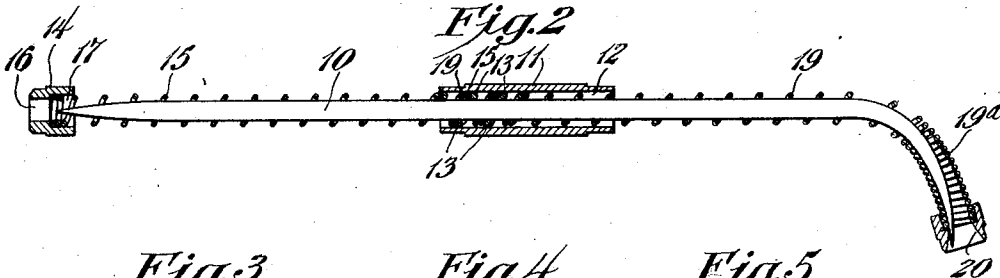
SCRIBER GUARD

Filed April 13, 1932

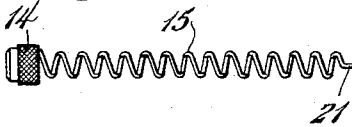
*Fig. 1*



*Fig. 2*



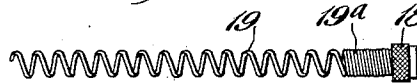
*Fig. 3*



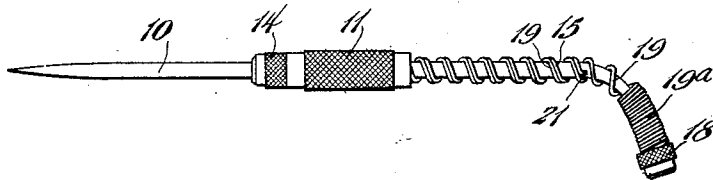
*Fig. 4*



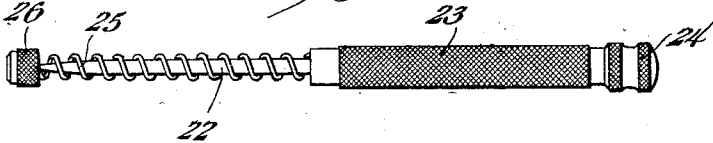
*Fig. 5*



*Fig. 6*



*Fig. 7*



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## UNITED STATES PATENT OFFICE

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## SCRIBER GUARD

Application filed April 13, 1932. Serial No. 605,085.

This invention relates to scribers of the class employed for scratching marks on metals, and other hard materials, and among other objects, aims to provide a novel guard to shield the sharp point of the instrument when it is not in actual use. Another object is to provide a scriber which may be carried safely and conveniently in the pocket. Other advantageous features of the invention are hereinafter set forth.

In the accompanying drawing, illustrating a preferred embodiment of my invention:—

Fig. 1 is an elevation, illustrating an adaptation of my invention to a double-pointed scriber;

Fig. 2 is a longitudinal section on an enlarged scale;

Figs. 3, 4 and 5 are separate elevations of parts shown in Fig. 2, but on the scale of Fig. 1;

Fig. 6 is a view similar to Fig. 1 but showing one of the points of the scriber fully exposed; and

Fig. 7 illustrates an adaptation of my invention to a single-pointed scriber.

Referring more particularly to Figs. 1 to 6, I have shown a scriber 10 having a straight end and a bent end, each end tapering to an extremely sharp point. The scriber is preferably made from circular stock of hardened and tempered steel which will take a high polish. To provide a finger grip on the polished shank, I employ a knurled sleeve 11 which surrounds an intermediate portion of the tool. This sleeve has a bore of sufficient diameter to provide an annular clearance 12 (Fig. 2) around the shank of the scriber, and is held onto the scriber with the aid of the spiral coil 13 shown separately in Fig. 4. The coil 13 comprises several convolutions of very stiff steel wire and has a very tight fit within the sleeve 11, so as to be immovable relative to said sleeve, and also has a very tight fit on the shank of the scriber, so that after these parts are assembled, the sleeve cannot be budged on the scriber shank without the aid of suitable tools. Preferably sleeve 11 is a die-casting, and is formed around the spring 13, so that said spring be-

comes, in effect, an integral, internal screw thread; however, the sleeve can be die-cast with an internal screw thread, formed integrally therewith, of such an inside diameter as to fit immovably on the shank.

The guard for the straight end of the scriber comprises a knurled cap ring 14 and a spiral spring 15, shown separately in Fig. 3. The cap 14 has a bore 16 of slightly greater diameter than the scriber shank, and a counterbore 17 in which one end of the spring 15 is suitably secured as by welding. The spring 15 is made of very stiff tough steel and offers very large resistance to tension or compression, but is very flexible as to bending. The diameter of coil spring 15 is slightly less than that of the coil 13, but the pitch of the two spirals is the same.

When the cap 14 has the position shown in Figs. 1 and 2, the scriber point is obviously well enclosed and protected. When it is desired to expose the point, as shown in Fig. 6, the sleeve 11 is grasped in the fingers of one hand, and the cap 14 is rotated with the fingers of the other hand, or else the cap 14 is held with one hand and sleeve 11 rotated with the other. The spiral coil 13 then acts as an internal thread in the sleeve, and the spring 15 screws through the sleeve and takes the position at the other end of the scriber shown in Fig. 6.

The bent end of the scriber has a similar guard comprising a knurled cap 18 and spring 19. The cap 18 is similar to the cap 14 with the exception of the flared bore 20 which facilitates movement of the cap around the curved portion of the scriber, and the spring 19 is similar to the spring 15 except that a portion 19<sup>a</sup> adjacent the cap is closed together, as shown in Fig. 5, and provides a more suitable guard for the bent end. The spring 19 screws through the sleeve 11 exactly as described for the spring 15.

Either of the two guards can be entirely opened, or both can be opened part way. When the spring on one side of the sleeve 11 passes through the sleeve, it screws into the spring on the opposite side, and in effect telescopes through it, as shown at the right hand side of Figure 6. The knurled caps

14, 18, obviously cannot approach each other more closely than a distance equal to the length of coil spring 19. However, both knurled caps may be screwed towards and  
 5 away from each other, and both of the springs 15 and 19 can pass through the sleeve at the same time. This is possible because the pitch of the spiral of all three members 13, 15 and 19, is three times the diameter of  
 10 the stock from which the springs are made. This means, in effect, that each guard is independent of the other, and each acts as if the other were not there, except when the two guards are screwed so close together that  
 15 the end of a spring on one side of the sleeve abuts a cap on the other side of the sleeve.

It will be observed that the end of the spring 15 is bent into alignment with the axis of the scriber, as at 21 in Figure 3.  
 20 In assembling the guards, the spring on the straight end of the scriber is screwed through the sleeve first, and then the spring on the bent end is screwed into place. The straight portion 21 then prevents the guard on the  
 25 straight end of the scriber from being screwed too far off or out of engagement with the member 13, unless the spring 19 is first removed, while the extra resistance afforded to screwing the spring 19 around the bent  
 30 end of the scriber makes it unlikely that the spring 19 will be unscrewed too far.

Referring now to Figure 7, I have shown my invention embodied in a straight single pointed scriber 22. In this case, the knurled  
 35 sleeve 23 is elongated to serve as a more convenient handle, and is held onto the shank of the scriber with the aid of a short spiral coil exactly as in the first case. The blunt end of the scriber is fitted with a knurled orna-  
 40 mental head 24 which has a press fit on the end of the rod. The guard comprising the spiral member 25, integrally secured to the knurled cap 26, screws back into the hollow sleeve as described for the scriber of  
 45 Fig. 1.

While the advantages afforded by the novel scriber guards herein shown and described lie chiefly in the protection given to the mechanic from the dangerous points and in the  
 50 protection afforded the points when placed in the mechanic's tool kit, other important advantages will be apparent to any one using the instrument. Thus, with the knurled cap drawn back a short distance from the point,  
 55 the cap serves as an excellent rest for the fore finger, while the spiral coil provides a better grip on the shank of the tool. The guards not only make the tool safe to carry in the pocket but, because of the friction offered by the spiral springs, prevent the tool  
 60 from slipping out of the mechanic's pocket every time he stoops over. It will thus be understood that my invention enhances the utility and useful life of commercial scribers.

65 Another feature of the invention is the sav-

ing in stock, in making a double-ended scriber. All double-ended scribers known to me are approximately three inches longer than the scriber of Fig. 1 (which is full size), this extra length obviating injury to the hand or glove of the user by the upper point of the scriber. With my improved scriber, the upper end may be grasped or used as a handle, without any possibility of injury, thus making the use of shorter stock entirely  
 10 practical. A further feature is the close-wound portion 19<sup>a</sup> of the guard, which makes possible the guarding of a bent end on a scriber made from short stock.

While I have described my invention as an improvement in scribers, I contemplate that the unique feature of the two telescoping coils, with the sleeve, and the third coil constituting an internal thread might be advantageously employed for a variety of  
 15 somewhat analogous purposes and hence do not wish to limit my invention to scribers alone.

Obviously, the present invention is not restricted to the particular embodiment thereof herein shown and described.

What I claim is:—

1. A guard for sharp pointed instruments having straight shanks comprising an annular cap ring adapted to enclose a point; a  
 20 spiral coil secured at one end to the cap ring and movable longitudinally on the shank of the instrument; and a sleeve surrounding the shank and the spiral coil and engaging the latter so that it screws through the sleeve.

2. A guard for scribers comprising a rigid annular metal cap; a stiff spiral spring secured at one end to the cap; and a sleeve adapted to surround the shank of the scriber; said sleeve having internal means with which  
 25 said spring engages after the manner of a screw thread, so that either the cap may be held and the sleeve rotated or the sleeve may be held and the cap rotated to effect longitudinal movement of the cap toward and from  
 30 the point of the scriber.

3. In combination with a scriber, a knurled sleeve secured to the shank of the scriber; a stiff spiral spring engaged after the manner of a screw thread with the sleeve, which it  
 35 enters, said spring being of sufficient length to extend to the pointed end of the scriber; a rigid metal collar having a knurled outer surface and a bore whose diameter is considerably greater than the pointed end, said  
 40 collar surrounding the pointed end when the spring is extended and being flexibly held by the spring, so as to be movable to a limited extent in all directions.

4. In combination with a scriber, a sleeve  
 45 secured at an intermediate point on the shank of the scriber; a short spiral spring tightly fitting the interior of said sleeve and the exterior of said shank and acting as means to hold the sleeve on the shank and also as a  
 50

screw-thread; a long spiral spring of the same pitch as the short spiral spring, but being freely movable longitudinally on the shank and within the sleeve; said long spiral spring being engaged with the short spiral spring; and a guard member secured at the outer end of the long spiral spring and adapted either to enclose a point of the scriber or to abut one end of said sleeve, or to assume any position intermediate the two stated positions.

5. In combination with a scriber, a sleeve secured at an intermediate point on the shank of the scriber; a short spiral spring tightly fitting the interior of said sleeve and the exterior of said shank and acting as means to hold the sleeve on the shank and also as a screw-thread; a pair of long spiral springs each of the same pitch as the short spiral spring, but being freely movable longitudinally on the shank and within the sleeve; said long spiral springs being threaded to the short spiral spring and being so disposed as to thread onto each other; and a guard member secured at the outer end of each long spiral spring and adapted either to enclose a point of the scriber or to abut one end of said sleeve, or to assume any position intermediate the two stated positions.

6. In combination with a scriber, a sleeve on the scriber shank having a bore of larger diameter than the shank; an internal spiral member around said shank within said sleeve constituting a screw-thread and frictionally securing said sleeve on the shank; a scriber guard comprising a cap ring adapted to surround the point of the scriber and a stiff spiral coil around the scriber shank having one end secured to said cap ring; said coil being engageable with the internal thread of said sleeve to be screwed through said sleeve in exposing the scriber point.

7. In combination with a double pointed scriber having one bent end, a sleeve around the middle portion of the scriber shank having an internal thread frictionally engaging the scriber shank; said thread having a pitch several times greater than the width of the thread; a helical spring around the scriber shank on each side of said sleeve, the pitch of said helical springs being equal to the pitch of the internal thread of said sleeve; and a cap ring secured to the end of each spring and adapted to shield the scriber points; each of said springs being engageable as a screw with the other, and both being engageable simultaneously with the internal thread of said sleeve.

8. In combination with a double pointed scriber having one bent end, a helical coil comprising several convolutions of stiff steel wire frictionally held around the middle portion of the scriber shank; a sleeve surrounding said coil and frictionally held thereon; helical springs on the scriber shank on each

side of said sleeve, each of sufficient length to extend from a scriber point to said sleeve; each of said springs being engageable with the other as a screw, and both being engageable either singly or doubly with the coil in said sleeve; and a cap around each end of the scriber suitable for shielding the points, each cap being secured to one of said springs at an end thereof.

9. In combination with a scriber having a point at each end, a retractable scriber guard on each end, flexible means secured to each guard and telescopable within each other.

10. A scriber comprising a straight shank whose end is bent; a spiral spring surrounding said end and extending toward the intermediate portion of the scriber shank; an annular guard secured to said spiral spring and surrounding the point of the scriber; means on the shank with which said spiral spring engages, after the manner of a screw thread, so that the guards may be withdrawn individually to expose said point; the spiral spring having a closely wound portion of sufficient flexibility to bend easily around the curvature of said bent end.

11. A double-pointed scriber comprising a straight shank, one of whose ends is bent; a spiral spring surrounding each end and extending toward the intermediate portion of the scriber shank; an annular guard secured to each spiral spring and surrounding one of the points of the scriber; means on the shank with which said spiral spring engages, after the manner of a screw thread, so that the guards may be withdrawn individually to expose either point; the spiral spring which surrounds the bent end having a closely wound portion of sufficient flexibility to bend easily around the curvature of said bent end.

12. A scriber comprising, in combination, a straight shank of round stock; a cylindrical metal sleeve fitting over said shank; a short piece of spiral spring secured in the sleeve and forming an internal thread for the sleeve; the interior diameter of said short piece of spring being such that it fits immovably on the shank; a long spiral spring engaging said short spiral spring after the manner of a screw thread and fitting loosely over the shank and also movable freely through the sleeve; and a guard secured to the outer end of the long spiral spring.

13. In combination with a scriber for metals and the like, a handle portion secured on the scriber; and a manually retractable guard which normally surrounds the point of the scriber and which may be withdrawn to a position on the shank of the scriber, said guard having a screw-threaded connection with the handle.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature.

CHACE D. GILMORE. 130