Aug. 26, 1958 J. S. CROWDER 2,848,809

RETRACTABLE SCRATCH AWL

Filed Feb. 24, 1956

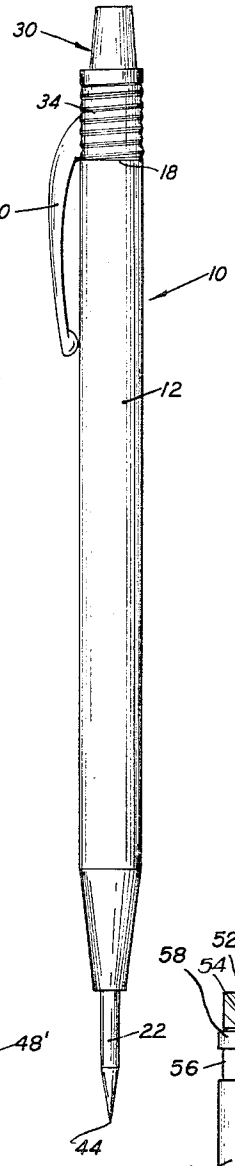

FIG. 1

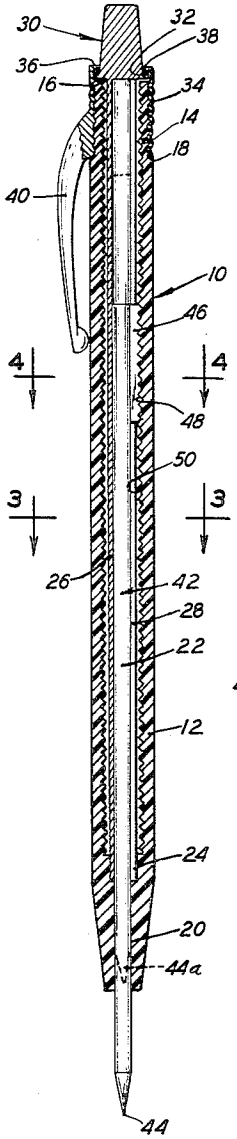

FIG. 2

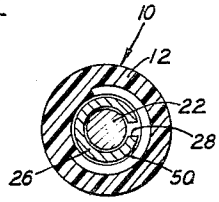

FIG. 3

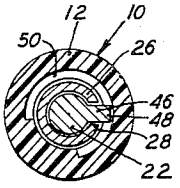

FIG. 4

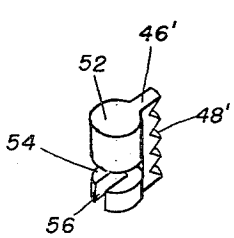

FIG-6

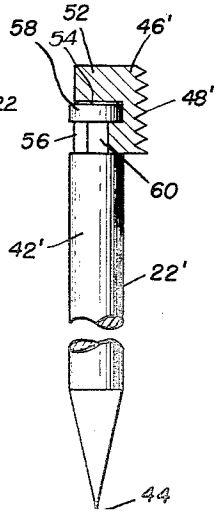

FIG. 5

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RETRACTABLE SCRATCH AWL

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1 Claim. (Cl. 30—164.9)

My present invention is a scribing tool having a retractable scratch awl. A principal object of the invention lies in the provision of a scratch awl which may be selectively extended and retracted so that it may be conveniently carried in one's pocket.

Another object of the present invention lies in the provision of a scribing tool which has a protective tubular housing within which the scribing element is initially contained and adapted to be extended from the housing a distance according to selection for use.

A further object of the invention lies in the provision of a scribing tool having mechanical means actuated by a manually rotatable thumb knob on the upper end of the tubular housing and operable to extend and retract the scribing element and having novel means confining the thumb knob against axial movement from the end of the housing.

A still further object of the invention lies in the provision in a scribing tool of an improved scratch awl which is nearly as long as the tubular housing of the scribing tool and therefore is capable of being extended a considerable distance when such case is found desirable.

In the accompanying drawings forming a part of this specification and in which like numerals are employed to designate like parts:

Figure 1 is a view in elevation of my improved scribing tool shown upon a slightly enlarged scale and having the scratch awl tip partially extended from the housing;

Figure 2 is a longitudinal vertical cross section of the scratch awl;

Figure 3 is a lateral cross section taken substantially on the plane indicated at line 3—3 of Figure 2;

Figure 4 is a lateral cross section taken substantially on the plane indicated at line 4—4 of Figure 2;

Figure 5 is an enlarged fragmentary view having portions broken away and showing a modified form of the scribing tool; and

Figure 6 is a perspective view showing an adaptor for association with the scribing tool of Figure 5.

Having reference now with a greater degree of particularity to the drawings, I have shown the scribing tool **10** as having an elongated tubular housing **12** which at its upper end is reduced and externally threaded at **14** from its upper end face **16** to a shoulder **18** downwardly spaced from the upper end face **16**. At its lower end, the housing is provided with a reduced cylindrical bore **20** which is sufficiently long to constitute ample bearing area to form a journal for supporting the lower end of the scribing element **22**. Upwardly of and contiguous to the journal **20**, I provide a concentric cylindrical bore **24** which has a circumference enlarged over that of the journal **20** and which constitutes an enlarged journal for the lower end of the drive tube **26**.

The drive tube extends from the upper end face **16** through the tubular housing **12** and is journaled at its lower end in the enlarged journal **24**. The drive tube **26** is provided with a longitudinally extending slot **28** for its full length. At its upper end, the drive tube **26** is provided with a thumb knob **30** which inspection of Figure 2 will reveal has at its juncture with the drive tube **26** an annular peripheral flange **32**. The circumferential size of the flange **32** is substantially identical to the circumferential size of the reduced and threaded upper end portion of the housing **12**.

To confine the drive tube **26** against axial movement out of the housing **12**, I provide an internally threaded metallic sleeve **34** which has an inwardly projecting flange **36** at its upper end which defines an aperture **38** through which the major portion of the thumb knob **30** extends. The flange **36** is, however, in overlying relationship to the peripheral flange **32** of the thumb knob **30** and therefore prevents removal of the thumb knob and the drive tube **26** from the tubular housing **12**.

The sleeve **34** preferably carries an integral pocket clip member **40**, the use of which is identical to that of conventional pocket clips on pencils or pens.

The scratch awl **22** has a cylindrical rod-like body **42** which is only slightly shorter than the length of the tubular housing **12** and is provided with a sharp, preferably case-hardened scratching or scribing tip **44** at its lower end. At its upper end, the scratch awl has an integral radially disposed and longitudinally extending ridge **46** which is threaded on its outer face **48** and extends through the drive tube slot **28** to cooperate with the internal threads **50** of the tubular housing disposed between the enlarged journal **24** and the upper end face **16** of the housing **12** so that rotation thereby will advance and retract the scratch awl relative to the housing.

Attention is drawn to the fact that the scratch awl rod **42** is of sufficient length that it may be projected from the housing **12** a considerable distance. In actual practice, this extension equals substantially 4½ inches from the lower end of the housing **12** to the scribing tip or point **44**. It also may be positioned at any extended position intermediate its retracted position indicated by the dotted lines of the tip **44** as shown at **44***a*, and its fully extended position in accordance with manual selection as desired for the job at hand. Obviously, the extending and retracting movements of the scribing element **22** are effected by rotation of the thumb knob **30** which rotates the drive tube **26**, causing the scribing element **22** to rotate and the interaction of the threads **48** on the ridge **46** and the internal threads **50** of the housing **12** effect longitudinal movements of the scribing element.

The modified scribing tool shown in Figures 5 and 6 has a scratch awl **22'** with the rod-like body **42'** terminating in a scribing tip **44**. At the end opposed to the scribing tip **44**, the awl **22'** is provided with a head **58** integral with the body but spaced therefrom by reduced extension **60**. An adaptor **52** is provided with a longitudinally extending radially disposed ridge **46'** which is threaded on its outer face **48'** and has a recess at **54** to receive the head **58** and a vertically disposed slot **56** communicating with the recess **54** to receive the extension **60** as shown in Figure 5. This provides a device which is much more easily manufactured at less expense, since the scratch awl **22'** may be manufactured with greater ease.

One skilled in metal fabrication or metal tool construction will readily see the numerous advantages and desirable objects of my present invention.

Having thus described my invention, I claim:

For use in a scribing tool body having an internally threaded bore containing a selectively rotatable longitudinally slotted drive tube for slidably receiving a scratch awl; a scratch awl comprising an elongated rod having a scratching point at one end and a head commensurate in cross sectional size and configuration to the rod at the opposed end and united therewith by means of a

reduced extension; an adaptor having a recess and a communicating slot rotatably receiving said head and said extension and releasably locking said scratch awl against axial movement relative to said adaptor and adapted to be received in said drive tube; a radially disposed ridge on said adaptor extending beyond the periphery of said rod and adapted to slidably extend from the slot of said drive tube; and threads on the outer face of said ridge adapted to cooperate with the threads of the internally

threaded bore when said scratch awl and adaptor are disposed in said scribing tool body.

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