G. C. ANDERSON.

TOOL HOLDER.

APPLICATION FILED APR. 20, 1917.

1,253,769.

Patented Jan. 15, 1918.

2 SHEETS—SHEET 1.

Fig. 1.

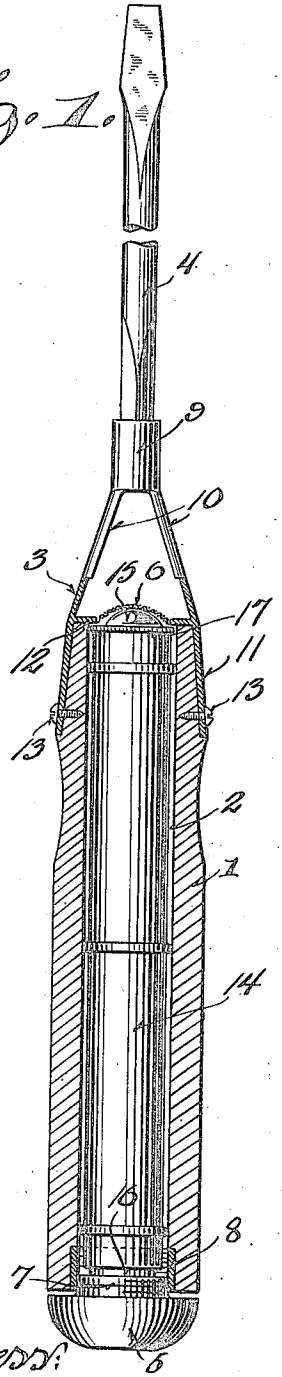
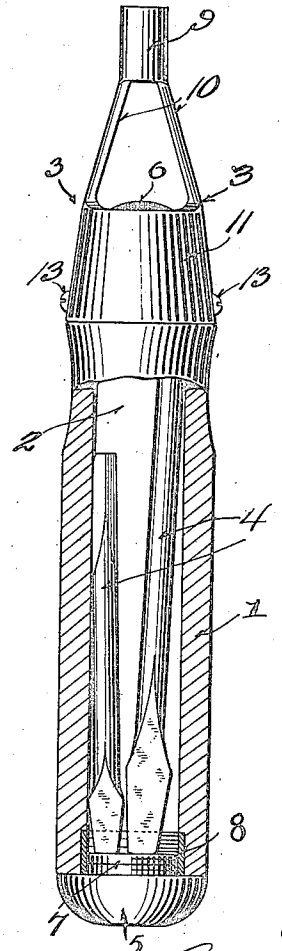


Fig. 2.



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2 SHEETS—SHEET 2.

Fig. 3.

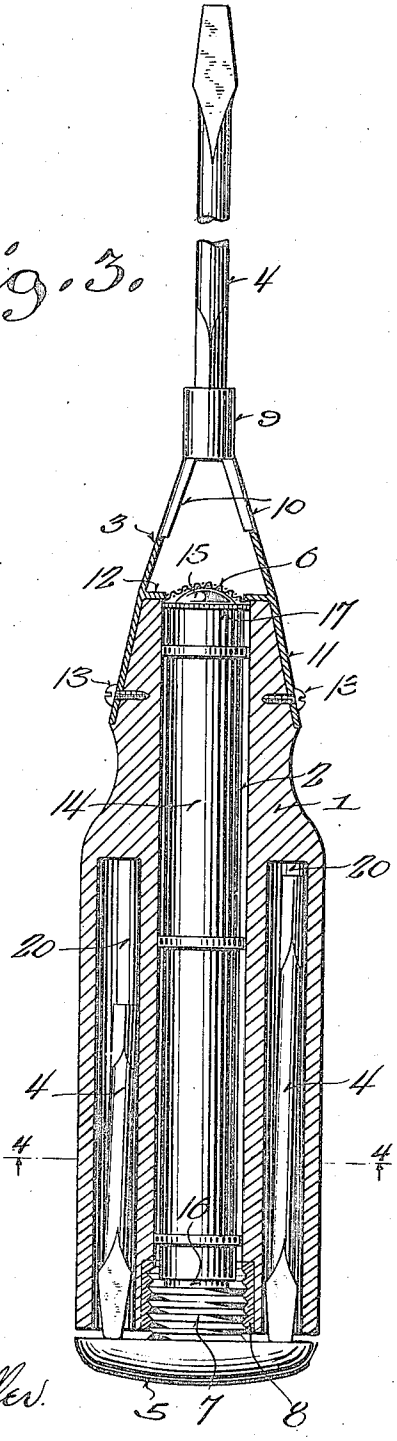
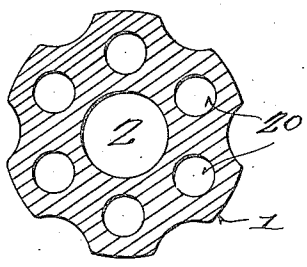


Fig. 4.



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UNITED STATES PATENT OFFICE.

GEORGE C. ANDERSON, OF RACINE, WISCONSIN.

TOOL-HOLDER.

1,253,769. Specification of Letters Patent. Patented Jan. 15, 1918.

Application filed April 20, 1917. Serial No. 163,525.

To all whom it may concern:

Be it known that I, GEORGE C. ANDERSON, a citizen of the United States, and resident of Racine, in the county of Racine and State of Wisconsin, have invented certain new and useful Improvements in Tool-Holders; and I do hereby declare that the following is a full, clear, and exact description thereof.

This invention relates to new and useful improvements in tools, more particularly to those which have illuminating means situated in their handle.

In carrying out the present invention, the handle of the tool is so constructed that it may contain either a number of tool heads or a unitary electric lamp or both, the first being ordinarily carried in the handle, while the latter is placed therein when it is necessary to use the tool in the night time or where there is not sufficient light to see the article being operated upon.

One of the objects of the invention is to provide a novel means for lighting the lamp when the same is disposed within the handle of the tool.

The invention resides in the novel features of construction, combination and arrangement of parts which will be hereinafter more particularly described and claimed and shown in the drawing, wherein:

Figure 1 represents a vertical longitudinal sectional view through the tool constructed in accordance with my invention.

Fig. 2 is a similar view showing a number of tool heads disposed in the tubular handle.

Fig. 3 is a view similar to Fig. 1 showing a slightly modified form of my invention.

Fig. 4 is a horizontal section taken substantially on the plane of the line 4—4 of Fig 3.

Referring now more particularly to the figures, it is seen that 1 denotes a tubular handle, the bore 2 of which extends throughout its length and is substantially the same diameter, and 3 denotes a tool handle in which one of several tool heads or bits 4 may be disposed when the device is in operation. The bore 2 extends through the ends of the handle, and one end is closed by a cap 5 while the other has a covering 6 of reticulated material disposed over the same. The cap has a cylindrical screw-threaded projection 7 which is engaged with the screw threads on a sleeve 8 carried by one end of the handle. This sleeve 8 is set into the wall of the bore 2 so that its inner diameter coincides with that of said bore. The handle proper is preferably of wood, while this sleeve is of metal so that screw threads may be more readily formed therein. When the tool heads 4 are placed in the tubular handle the cap 5 will engage the end of the handle and prevent said tool heads from being removed. The tool holder 3 consists of a socket 9 formed integrally with the converged ends of a pair of legs 10, the other ends of said legs being similarly connected to the outer edge of a ferrule 11 which surrounds the end of the handle opposite the cap 5. The reticulated covering 6 is preferably secured to an annular flange 12 which extends radially from the outer end of the ferrule 11. The inner edge of the flange 12 extends over the end of the bore 2 as shown in Fig. 1, the purpose to be later described. The tool heads may be readily held in the socket 9 by any preferred means, for instance by providing the ends of said heads with angularly tapered portions for engagement with similarly shaped and tapered walls of the socket. The ferrule is preferably held upon the handle by means of the screws 13.

When the tool heads are not in use, they are inclosed within the hollow handle as shown in Fig. 2. When, however, it is desired to use any particular tools the operator may readily see whether this tool is within the handle by looking through the end which is covered by the material 6. Since the openings in this covering are sufficiently large to permit light to enter the interior of the handle, the number and shape of the various tools therein may be readily determined, thus obviating the necessity for removing the cap 5 when the desired tool is not contained within the handle.

Although tool heads are ordinarily stored within the hollow handle, the same is so constructed that a unitary electric lamp 14 may be housed therein. The bulb 15 of this lamp is placed in the end thereof and adjacent the covering 6 of the handle when the same is housed therein, such covering readily allowing the rays of light to be projected outwardly when the contact member 16 located in the other end of the lamp is pressed inwardly. The light from the bulb 15 is thrown between the legs 10 and on the article which is being engaged by the tool head 4, thereby greatly aiding the operator so

that he may more quickly accomplish the desired purpose. The lamp 14 is provided with an annular flange 17 around its bulb end for engagement with the flange 12 so as to space said bulb 15 from the covering 6.

Any form of spring pressed contact member 16 may be placed within the end of the lamp which can be engaged by the projection 7 on the cap 5 when the latter is rotated in the proper direction to force said projection inwardly; thus by screwing or unscrewing the cap 5 the electrical circuit within the lamp is completed or broken at the will of the operator. By screwing the cap inwardly and leaving it in this position the contact member will cause the lamp to remain lighted. In moving the contact member 16 inwardly, the bulb 15 is prevented from being forced against the covering 6 and thereby injuring the same by means of the flanges 12 and 17.

In certain instances it is desirable that a tool be provided with both a central bore to receive a unitary lamp, and also one or more sockets or the like to receive and house the tool heads. Such a tool is shown in Figs. 3 and 4 in which all parts are shown to be constructed substantially like the first mentioned form except that the handle 1 is of a considerably larger diameter. This additional size permits an annular series of sockets 20 to be formed around the central opening 2, these sockets being of sufficient length to receive the ordinary sized tool heads. Any number of these sockets might be provided depending upon the number of such heads. By this arrangement both the tool heads and the lamp may be carried within the handle 1 at the same time, or the lamp may be removed and tools of larger size than could be placed in the sockets 20, inserted in said central bore. The operation of the make and break contact for the electric lamp is the same in this modification as in the preferred form.

From the foregoing description it will be readily seen that the reticulated covering 6 serves the dual function of permitting rays of light to be thrown from the electric lamp when the same is placed within the hollow handle, and for allowing the operator to see whether or not the desired tool is within the handle when the same is used for storing a number of tool heads. The simply constructed and efficient means for lighting the electric lamp is also one of the important features of my invention, without which it would be necessary to provide a more complicated method of completing the electric circuit to light the lamp.

Various minor changes may be made in the different parts of the device such as constructing the whole handle of metal or other material than wood, and also by providing a slightly different method of mounting the tool head within the holder.

What is claimed:—

1. The combination with a unitary electric lamp having a make and break contact for lighting the bulb of the same, of a tubular handle open at both ends and adapted to house said lamp, one end being closed by the bulb end of the lamp, the other end of the opening in said handle being enlarged, a sleeve secured in said enlarged end, the interior of said sleeve being substantially the same diameter as the opening in the handle and provided with screw threads, a cap for closing the last mentioned end of the handle, said cap carrying a threaded portion for engagement with the threads of said sleeve and movable inwardly against said contact to close the electrical circuit and light the lamp, and a tool carried by one end of the handle.

2. The combination with a unitary electric lamp, of a tubular handle open at one end and adapted to house said lamp, a ferrule surrounding one end of the handle, an annular flange extending radially from the outer end of the ferrule and formed integrally therewith, a protective covering connected to the inner edge of the flange and closing the opening in one end of the handle, a pair of outwardly converging legs formed integrally with the outer end of the ferrule and disposed diametrically opposite each other and a tool holding socket secured to the outer end of the converging legs.

3. The combination with a unitary electric lamp and a plurality of tool bits, of a tubular handle open at both ends, a reticulated metallic cover for one end of the handle substantially for the purpose described, said handle being adapted to receive either the electric lamp with its light end adjacent said cover, or said tool bits, and a closure for the end of the handle remote from the reticulated cover.

In testimony that I claim the foregoing I have hereunto set my hand at Milwaukee, in the county of Milwaukee and State of Wisconsin.

GEORGE C. ANDERSON.