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R. KINCAID.

TOOL.

APPLICATION FILED MAY 24, 1915.

1,144,210.

Patented June 22, 1915.

2 SHEETS—SHEET 1.

Fig. 1.

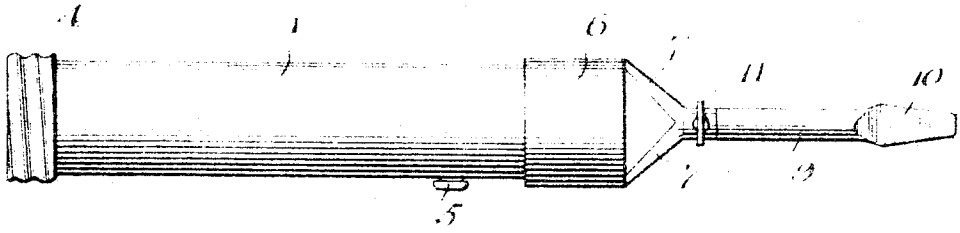


Fig. 2.

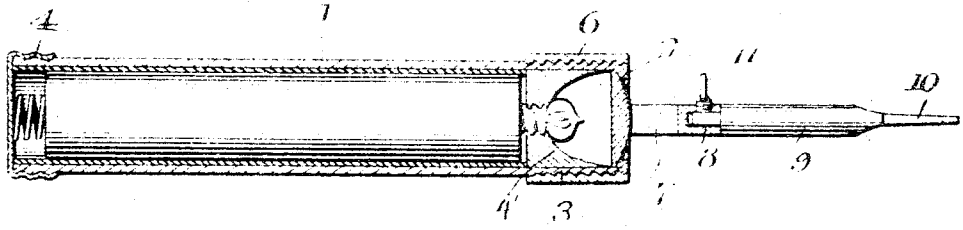


Fig. 3.

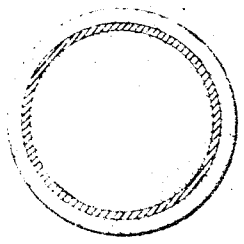
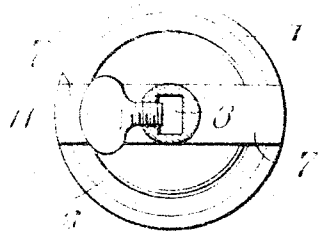


Fig. 4.



Witnesses

Hugh C. Lee

John J. McCarthy

Inventor

R. Kincaid

By Victor J. Evans

Attorney

Draftsm

6.46

R. KINCAID.

TOOL.

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1,144,210.

Patented June 22, 1915.

2 SHEETS—SHEET 2.

Fig. 5.

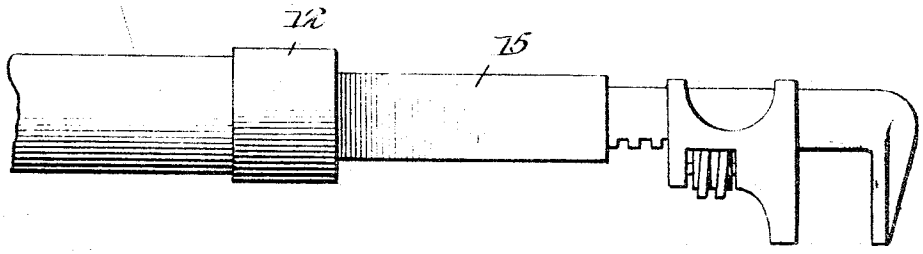


Fig. 6.

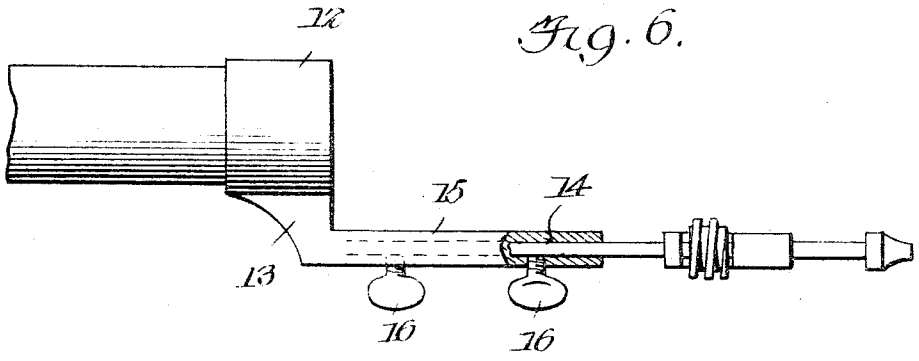


Fig. 7.

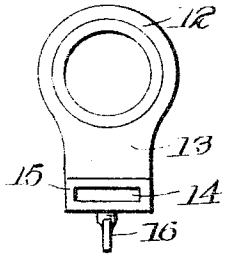
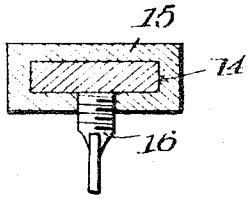


Fig. 8.



Witnesses

Hugh H. Ott

John J. McCarthy

Inventor

R. Kincaid

By Victor J. Evans

Attorney

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

6.46

UNITED STATES PATENT OFFICE.

ROBERT KINCAID, OF YOUNGSTOWN, OHIO.

TOOL.

1,144,210. Specification of Letters Patent. Patented June 22, 1915.

Application filed May 29, 1914. Serial No. 841,897.

To all whom it may concern:

Be it known that I, ROBERT KINCAID, a citizen of the United States of America, residing at Youngstown, in the county of Mahoning and State of Ohio, have invented new and useful Improvements in Tools, of which the following is a specification.

This invention relates to improvements in tools and has particular application to an illuminated tool which will be found especially useful by machinists, motorists, chauffeurs and the like.

In carrying out the present invention, it is my purpose to provide a tool which will embody a handle and a lamp carried by the handle and adapted to throw rays of light onto the object engaged by the tool so as to facilitate the use of the latter, thereby illuminating the object in the vicinity of the work.

It is also my purpose to provide a tool of the class described which will be found especially useful by machinists, motorists and the like and whereby the work may be illuminated so that the desired repairs may be made in a minimum time and with the least possible effort or exertion on the part of the user.

A further object of my invention is to provide a handle carrying a lamp and capable of application to tools of various types.

With the above and other objects in view, the invention consists in the construction, combination and arrangement of parts hereinafter set forth in and falling within the scope of the claim.

In the accompanying drawings: Figure 1 is a view in side elevation of a tool constructed in accordance with the present invention. Fig. 2 is a longitudinal sectional view through the tool. Fig. 3 is a cross sectional view therethrough. Fig. 4 is a view in end elevation of the tool. Fig. 5 is a view in side elevation showing the handle connected with another form of tool. Fig. 6 is a similar view taken at right angles to Fig. 5. Fig. 7 is a view in end elevation thereof. Fig. 8 is a cross sectional view through the same.

Referring now to the drawings in detail, 1 designates a handle which, in the present instance, is tubular in cross section and of any desired or necessary length. This handle is preferably constructed of metal and is equipped interiorly, adjacent to one end, with an annulus 2 engaging the wall of the handle and held against movement. If desired, this annulus may be formed integral with the inner wall of the handle, although a split ring will answer the purpose equally as well. The outer wall of the handle at the said end thereof is threaded exteriorly as at 3 and is similarly threaded at the opposite end thereof and threaded onto the last-mentioned end of the handle and closing the latter is a cap 4. Within the tubular handle 1 is a self-contained electric lamp of any suitable construction, such lamp embodying a bulb and a case carrying a dry cell and having a socket or receptacle at one end thereof electrically connected with the dry cell and receiving the plug of the lamp bulb. This lamp is interposed between the annulus 2 and the cover 4 and the reflector 4 for the lamp bears against the annulus so that when the lamp is illuminated the rays of light will be projected out of the tubular handle by way of the open end thereof in a line axial with the axis of the handle. Located upon the exterior of the tubular handle 1 adjacent to the open end thereof is a switch 5 connected in circuit with the lamp and controlling the connection between the lamp and the battery. When the switch is closed, the lamp is illuminated, while when the switch is open the lamp is extinguished, as will be readily understood.

In the embodiment of my invention selected for illustrative purposes, I have illustrated the handle as detachably associated with a screw driver and a standard wrench. In the present instance, the screw driver comprises an interiorly threaded socket 6 having one edge formed, at diametrically opposite points, with arms 7, 7 converging toward each other at the outer ends thereof and terminating in a socket 8 within which is mounted one end of a shank 9 having the opposite extremity thereof pointed as at 10 to enter the slot in the head of the same. A set screw 11 is threaded through one wall of the socket 8 and binds against the adjacent end of the shank 9 to hold the latter to the socket 6. In practice, the socket 6 is threaded onto the threaded open end of the tubular handle 1 and the shank 9 projects outwardly from the handle in a line coaxial therewith, while when the switch 5 is closed the rays of light from the lamp pass through the spaces between the arms 7 and around the shank 9 and illuminate the work so that

the user of the device may readily and conveniently insert the pointed end of the screw driver into the slot in the screw.

The wrench connector herein shown comprises a socket member 12 threaded interiorly and formed adjacent to one edge with a laterally projecting lug 13 equipped with an outwardly projecting arm 15 formed with a socket 14 and provided with set screws 16 in the side wall of the socket. This shank projects outwardly from the socket member 12 in a plane parallel with the longitudinal axis of the latter and the handle of the wrench is inserted in the socket 14 and the set screws tightened whereby the wrench is securely held in place as shown in Figs. 5 and 6. When it is desired to apply the wrench to the handle, the socket member 12 is threaded onto the open end of the handle and the switch 5 closed whereby the rays of light from the lamp project outwardly from the open end of the casing and in a plane parallel with the socketed face of the shank thereby illuminating the work.

From the foregoing description taken in connection with the accompanying drawings, the construction and manner of employing my invention will be readily apparent. It will be seen that I have provided an illuminated handle which may be connected with any number of tools so as to facilitate the use of the latter.

While I have herein shown and described one preferred form of my invention by way of illustration, I wish it to be understood that I do not limit or confine myself to the precise details of construction herein described and delineated, as modification and variation may be made within the scope of the claim without departing from the spirit of the invention.

I claim:

The combination with a tubular handle, of an annulus at one end of said handle, a self-contained electric lamp within said handle having the reflector thereof bearing against said annulus and adapted to project the rays of light out of the adjacent end of the handle in a line coaxial therewith, a socket member surrounding the last-mentioned end of said handle, an arm secured to said socket member and extending outwardly therefrom and having a socket formed therein, a tool within said last socket, and means for effecting a detachable connection between said arm and tool whereby the tool may be removed and replaced.

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

ROBERT KINCAID.

Witnesses:
J. C. KINCAID,
SENICE J. LAMB.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."