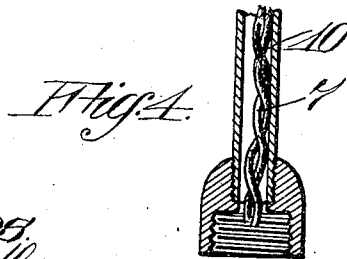
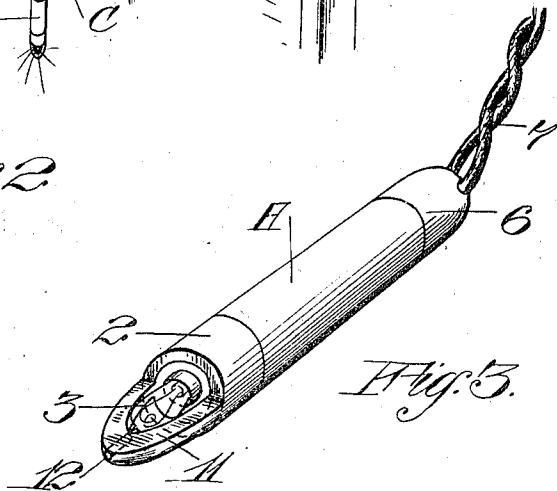
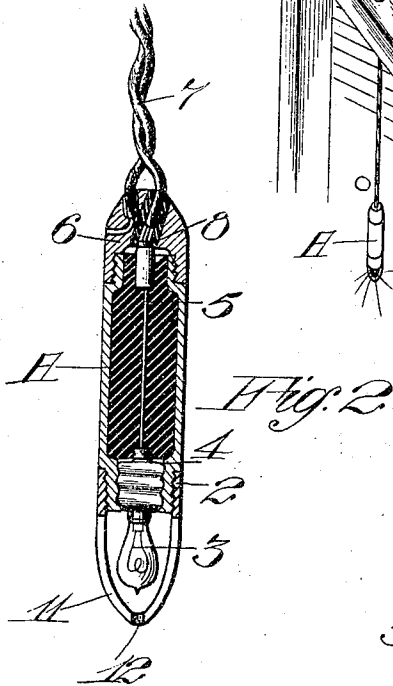
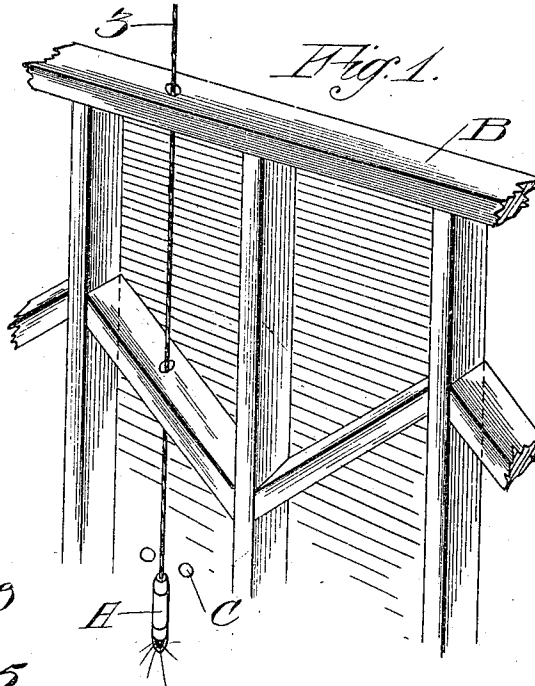


F. L. FITCH.
ELECTRIC LIGHTED FINDER.
APPLICATION FILED AUG. 3, 1910.

995,778.

Patented June 20, 1911.



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UNITED STATES PATENT OFFICE.

FRANK L. FITCH, OF SANTA CRUZ, CALIFORNIA.

ELECTRIC-LIGHTED FINDER.

995,778.

Specification of Letters Patent. Patented June 20, 1911.

Application filed August 3, 1910. Serial No. 575,306.

To all whom it may concern:

Be it known that I, FRANK L. FITCH, citizen of the United States, residing at Santa Cruz, in the county of Santa Cruz and State of California, have invented new and useful Improvements in Electric-Lighted Finders, of which the following is a specification.

My invention relates to wire or like finders and especially pertains to electric appliances or tools of the class named.

The purpose of this invention is to provide a simple, efficient, practical and durable tool, particularly useful to machinists, plumbers, gas-fitters, electricians and others, where it is sometimes necessary to perform work in such places and under such conditions that it is impossible, ordinarily, to see the material worked upon, or to easily and quickly perform the labor.

The invention consists of the parts and the construction and combination of parts as hereinafter more fully described and claimed, having reference to the accompanying drawings, in which—

Figure 1 is a perspective view of the device as used in a partition of a building. Fig. 2 is a detail sectional view of the finder. Fig. 3 is a full-size perspective view of the tool. Fig. 4 shows a rigid connection with the barrel.

The tool comprises a suitably shaped base or barrel A, of appropriate material, having a removable ferrule or guard 2, screwed on the lower end and partly covering and protecting a small electric bulb 3 screwed into the barrel A, so that its filament ends will make electrical connection, one with the barrel and the other with a terminal 4 of a rod 5 insulated within, and passing through, the barrel. The other end of the barrel is closed with a socket piece or cap 6, to which are secured the wires 7 connected to a battery or other source of electric current. One of the wires 7 is insulated from the cap 6 and terminates at 8, so that when this is screwed home on the barrel, the terminal 8 engages the rod 5. In this way a circuit is com-

pleted through the casing and rod from the wires 7 and across the lamp 3.

By forming on the ferrule an eye or guard yoke 11 arching over the bulb 3, and making it more or less pointed, it will easily guide itself through holes and crevices and protect the lamp from breakage. In order not to cast a shadow in front of the tip of the eye or yoke 11, the latter is perforated at 12, so that the rays of light from the bulb may project in the line of the axis of the tool; the tool illuminating the space into which it is passed sufficiently to permit the workman to proceed rapidly and correctly with the operation, and is inexpensive, small and durable.

In wiring a building, a workman with this tool has only to bore a small hole through the stud cap B, Fig. 4, and let the barrel down by the board 3 until the light is clearly visible through the previously made holes C in the wall at which point any electric or gas fixtures are to be applied. The light being easily and quickly perceived, he does not have to blindly grope with the ordinary hooking tool to pick up the cord or wire within the partition. Having hooked the small barrel out through a hole C, the wire 7 is disconnected from its battery above the cap B, and then the regular wire to be installed is fastened on and pulled through.

Many hours of time required for fishing through partitions and in various other places, as machines, are saved by this tool, which may be provided with a rigid rod or tube 10, so that it may be used in any angular position.

Having thus described my invention, what I claim and desire to secure by Letters Patent is—

1. A finder comprising a barrel, a removable cap at one end thereof, an electric light bulb fitted to the other end of the barrel, and a guard fitted to said last-named end and extending lengthwise therefrom, and having an axially disposed light opening in the end.

2. A finder comprising a barrel, a remov-

able cap at one end thereof, an electric light
bulb fitted to other end of the barrel, and a
guard fitted to and extending lengthwise
from the last named end of the barrel, said
5 guard being upon one side of the light bulb
and having a light opening formed axially
through one of its ends.

In testimony whereof I have hereunto set
my hand in the presence of two subscribing
witnesses.

FRANK L. FITCH.

Witnesses:

CHRISTIAN HOFFMANN,
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