

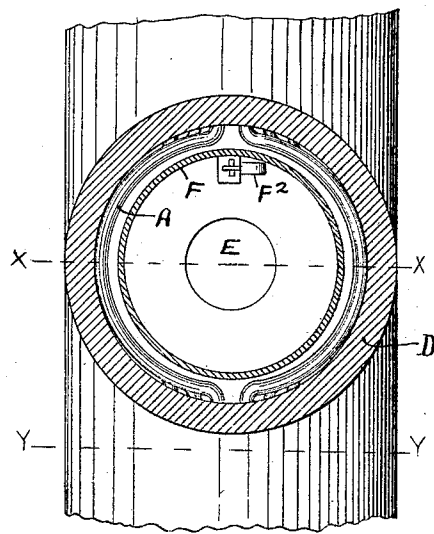
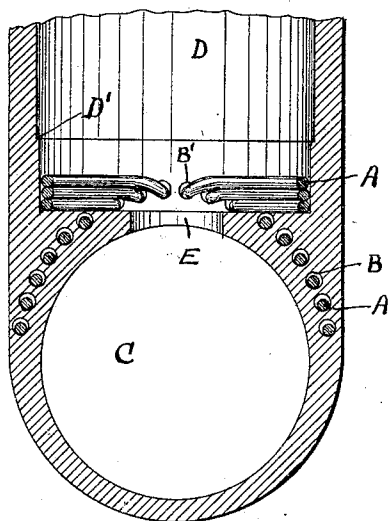
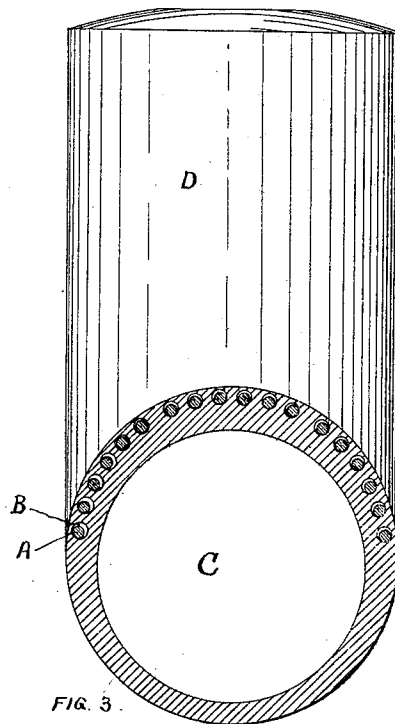
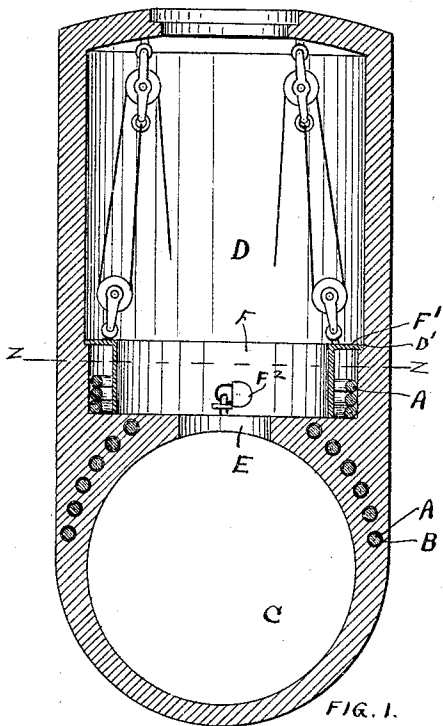
(No Model.)

E. L. RANSOME.

MANHOLE FOR ELECTRIC CABLE OR OTHER SUBWAYS.

No. 544,747.

Patented Aug. 20, 1895.



WITNESSES:

FIG. 2.

FIG. 4.

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UNITED STATES PATENT OFFICE

ERNEST LESLIE RANSOME, OF CHICAGO, ILLINOIS.

MANHOLE FOR ELECTRIC-CABLE OR OTHER SUBWAYS.

SPECIFICATION forming part of Letters Patent No. 544,747, dated August 20, 1895.

Application filed January 11, 1895. Serial No. 534,558. (No model.)

To all whom it may concern:

Be it known that I, ERNEST LESLIE RANSOME, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented an Improvement in Manholes for Electric-Cable or other Subways; and I hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to a manhole described in Letters Patent No. 490,630, granted to me January 24, 1893, the characteristic of which is that it is common both to electric subways and to a sewer or other subway beneath.

It consists of a movable shield, hood, or cover in combination with the chamber of the manhole, and is for the purpose of protecting the electric wires or cables where they are placed about the walls within the manhole-chamber.

The accompanying drawings illustrate this invention.

Figure 1 represents the chamber of the manhole in vertical cross-section on line X X of plan, Fig. 4, showing position of electric cables within the shield and a method of hoisting the latter. Fig. 2 is a section on the same line without the shield and its appliances. Fig. 3 is a cross-section of the conduits on line Y Y of the plan, Fig. 4. Fig. 4 is a plan of manhole on line Z Z of Fig. 1.

The manhole to which this invention relates is common both to the electric conduits B and to the sewer or other conduit C. The electric conduits open into the manhole-chamber at its base or thereabout, as shown at B', the entrance to the sewer being through the trap-door E in the floor of the manhole-chamber. Some or all of the electric cables on entering the manhole-chamber are diverted from their straight course and placed along the walls of the manhole-chamber, one above the other or in any convenient manner until they are returned into their respective conduits on the opposite side of the manhole-chamber. It is for the purpose of preventing unrestricted access to these electric cables A when exposed in the manhole-chamber D, without restricting the right of way to sewer C, that the shield F is needed, for in the normal or ordinary use of the manhole for such purposes it is essential that the electric cables be protected from injury or handling by unauthorized men—

such, for instance, as might arise from men occupied in cleaning the sewers. This shield may be constructed of any desirable material and be of any required shape, provided that when in place about the electric wires it efficiently protects them. It is by preference so constructed that its bottom edge fits upon the floor of the manhole. Its side extends from this floor within the area encompassed by the electric cables or wires to the level of the highest of them in such a manner that it can readily be lifted out of or lowered down into its place. From the upper edge of the side a flange F' springs outward at right angles or at any suitable angle so as to lap over the electric cables or wires and fit sufficiently close to the manhole-wall to afford protection to them. By preference a set-off D' is made in the wall of the manhole, over which the flange extends. This shield is locked to the floor of the manhole, as shown at F², or it is secured in place by any of the well-known ways. In cases where the electric cables are recessed into the walls of the manhole or when the wall or other fixture projects over them the flange of the shield may be dispensed with. As a ready means for lifting this shield, eyebolts are embedded into the roof of the manhole-chamber and corresponding eyebolts are attached to the shield. Small blocks and falls can then be attached to these bolts and the hood drawn up therewith in the usual way of such hoisting. In place of this arrangement the hood may be counterbalanced after any of the usual manners, or it may be made in sections that can readily be handled.

I do not claim any special form of shield or method of raising or lowering it.

While the drawings show only the upper cables deflected, it is apparent that by cutting away the concrete walls to the lower conduits they also will have an entrance into the manhole-chamber and that their cables can be curved upward so as to be within reach of the operator.

What I claim is—

1. A manhole chamber having electric conductors passing around the wall thereof; a circular shield for protecting said conductors and devices for raising said shield so as to permit of access to said conductors.

2. A water conduit and manhole chamber

therefor; electric conductors entering said chamber and passing along the wall thereof and a movable shield for protecting said conductors.

- 5 3. A shell serving as a conduit for water or sewerage and having a series of smaller conduits in the body of said shell; a manhole-chamber serving as a means of entering said

main conduit, electric wires passing through the auxiliary conduits and around the wall of said manhole chamber and a shield for protecting all wires within said chamber.

ERNEST LESLIE RANSOME.

Witnesses:

STEPHEN T. MATHER,
THOS. THORKILDSEN.