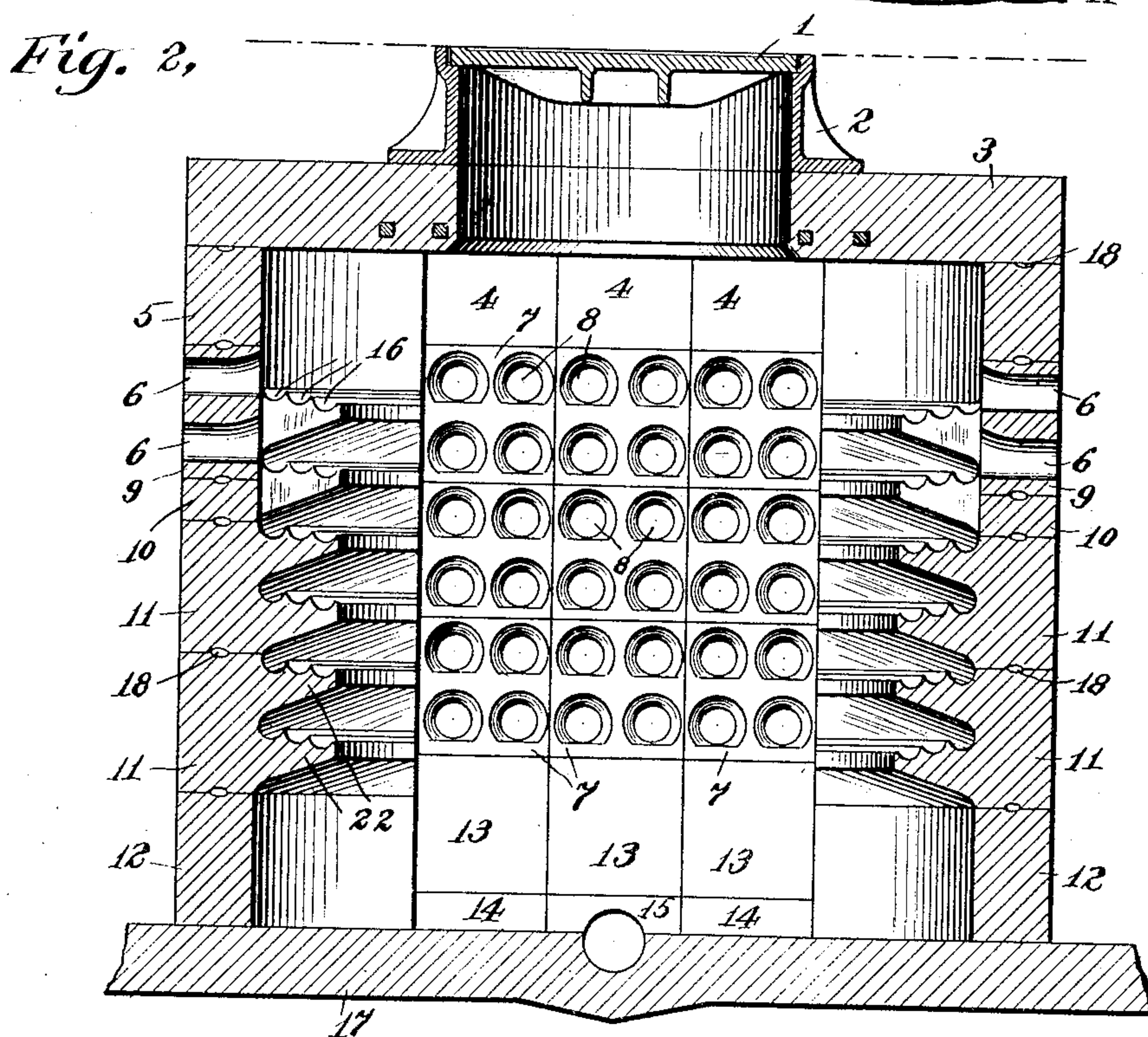
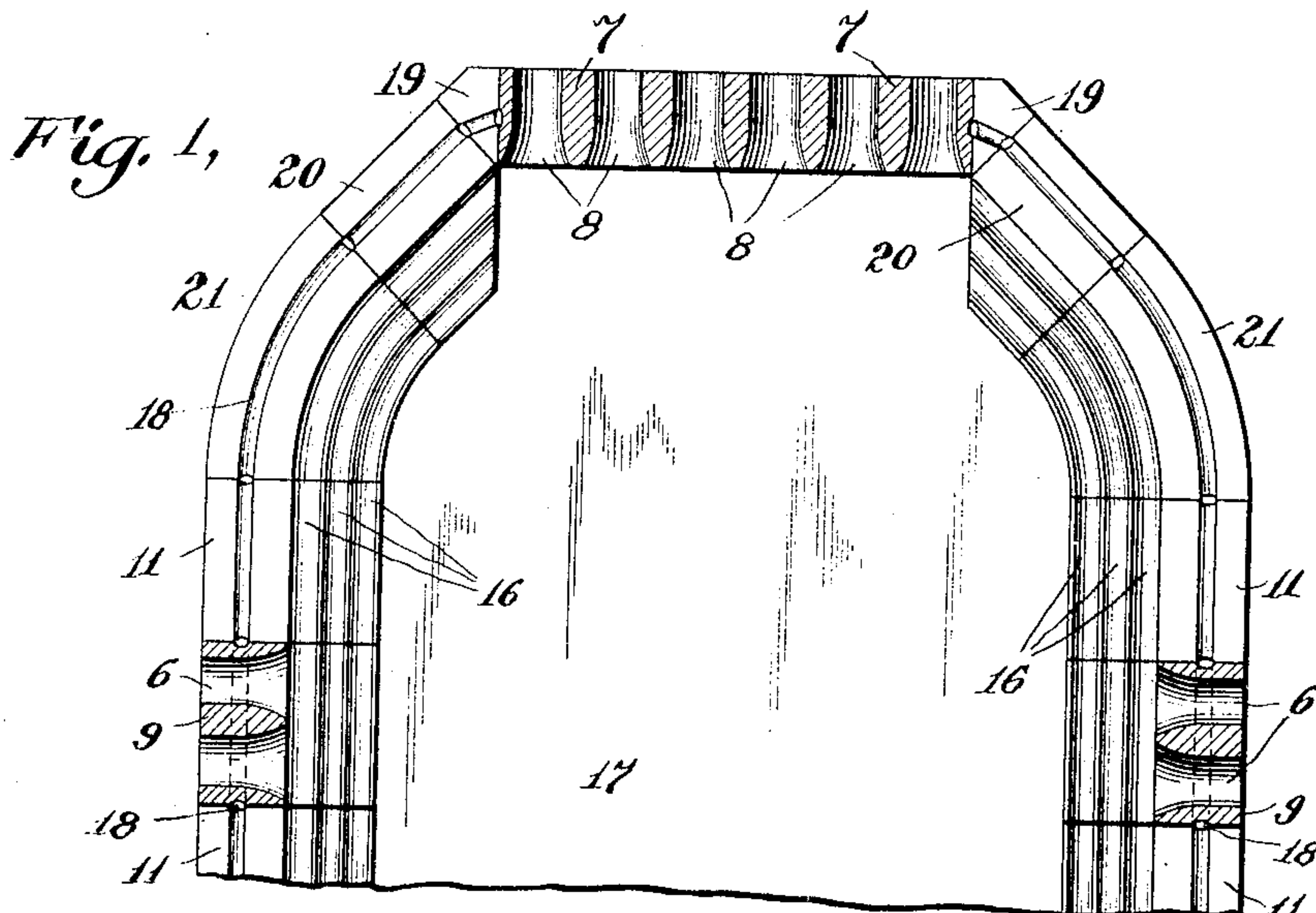


No. 810,855.

PATENTED JAN. 23, 1906.

W. A. HALLER & J. W. BILLINGSLEY.  
MANHOLE FOR CONDUITS AND THE LIKE.

APPLICATION FILED FEB. 21, 1905.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

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## MANHOLE FOR CONDUITS AND THE LIKE.

No. 810,855.

Specification of Letters Patent.

Patented Jan. 23, 1906.

Application filed February 21, 1905. Serial No. 246,701.

*To all whom it may concern:*

Be it known that we, WINFIELD A. HALLER, of New Orleans, in the parish of Orleans and State of Louisiana, and JAMES W. BILLINGSLEY, of Tivoli, in the county of Dutchess and State of New York, citizens of the United States, have invented new and useful Improvements in Manholes for Conduits and the Like, of which the following is a specification, taken in connection with the accompanying drawings, which form a part of the same.

This invention relates to manholes for electric conduits or similar purposes, and relates especially to manholes formed of concrete blocks and provided with internally-projecting shelves for supporting cables, pipes, or the like.

In the accompanying drawings, illustrating an embodiment of this invention, and in which the same reference-numerals refer to similar parts in both figures, Figure 1 is a partial horizontal section, and Fig. 2 is a vertical section.

In the form of device illustrated in the drawings the bottom 17 of the manhole may be formed of concrete or other material, preferably of a waterproof character, and a suitable drain 15 may be provided to remove any water or moisture. The walls of the manhole may be formed of blocks of suitable contour to correspond with the particular shaped manhole desired, the shape of the manhole being of course varied to suit the number of cables which enter it in electrical work. As indicated, the manhole may have a large inlet-section at either end and a smaller inlet-section at each side of the same, these inlet-sections being formed of suitable spacing-blocks 4 13 14 and the inlet-blocks 7, (see Figs. 1 and 2,) which are formed with the inlets 8, the smaller lateral inlet-sections being built up in a similar way from the inlet-blocks 9, having one or more inlets 6 therein. The manhole-walls are preferably formed with shelf-blocks provided with one or more internally-projecting supporting-shelves substantially in line with the corresponding inlets to support and protect the cables thus entering the manhole. These shelf-blocks 11 are indicated as formed with a plurality of integral shelves 22, each of which is provided on its

upper surface with a series of pockets or supporting-grooves 16 of suitable contour to accommodate the cables and which may, if desired, be formed sufficiently deep to substantially inclose them, and thus in case of the accidental burning out of one or more of the cables to protect the other cables in the manhole from damage. It is not necessary that all the blocks forming the manhole-walls between the inlet-sections be formed with shelves, and, as indicated in Fig. 2, the lower tier of blocks 12 and the upper tier 5 may be formed without shelves. The shelves are arranged to provide a substantially continuous supporting-shelf coöperating with the various inlets and extending around the manhole-walls to closely engage and properly support a cable throughout substantially its entire length within the manhole.

As indicated in Fig. 1, the various shelf-blocks 11, 21, and 20 may be curved in various ways and the shelves correspondingly formed, so as to properly fit together, suitable spacing-blocks 19 being used where necessary to form a complete manhole-wall and properly support the top 3, which may be of reinforced concrete and on which rests the collar 2 and the removable cover 1 of ordinary construction, which is substantially on the street-level, as indicated. Each of the blocks forming this manhole-wall is preferably provided with one or more alining grooves 18, running around the same, and these blocks may be alined vertically and horizontally, so as to form alining holes from these coöperating alining grooves, and in this way the whole structure may be readily tied together by the use of ransome-rods and a suitable cement or luting which may be poured into or otherwise applied to fill these alining holes.

As indicated, the inlet-section at the end of the manhole is provided with horizontal rows of six inlets each, each row of inlets being on substantially the same level as one of the supporting-shelves and each of these shelves being adapted to carry three of the cables issuing from the corresponding inlets. As indicated, the two upper shelves are interrupted adjacent the lateral inlets 6, so that, if desired, cables entering these inlets may be disposed on the corresponding shelves, the other



shelves being indicated as continuous past these lateral inlet-sections. In this way the cable entering each inlet may be provided with a corresponding substantially continuous supporting-shelf extending around the manhole-wall to the inlet, through which the other end of the cable enters. The number and disposition of the supporting-shelves and the arrangement of the shelf-blocks are of course varied to correspond with the number and disposition of the inlets to the particular manhole.

It is of course understood that those familiar with this art may make many modifications in the form, size, proportion, contour, and numbers of parts of this device, parts of the same may be used without employing the whole, and parts may be used in connection with other devices without departing from the spirit of this invention or losing the advantages of the same. We do not, therefore, desire to be limited to the details of the disclosure which has been made in this case; but

What we claim as new, and what we desire to secure by Letters Patent, is set forth in the appended claims:

1. In manholes, blocks aligned vertically and formed with cooperating alining grooves to form manhole-walls said blocks comprising inlet-blocks and shelf-blocks formed with integral inwardly-projecting shelves provided with pockets, said shelves cooperating with said inlets to form substantially continuous

supporting-shelves around the walls of the manhole between the inlets thereof and on the same level as the corresponding inlets. 35

2. In manholes, blocks comprising inlet-blocks and shelf-blocks united to form manhole-walls, said shelf-blocks being formed with integral inwardly-projecting shelves provided with pockets, said shelves cooperating with said inlets to form substantially continuous supporting protecting-pockets around the walls of the manhole between said inlets. 40 45

3. In manholes, blocks comprising inlet-blocks and shelf-blocks to form a manhole, said shelf-blocks being provided with a plurality of internally-projecting shelves forming continuous pockets around the walls of said manhole between inlets and on substantially the same level as the corresponding inlets, each of said shelves being provided with a plurality of said pockets. 50

4. In manholes, walls provided with inlets at different levels and with inwardly-projecting shelves on substantially the same levels as said inlets, the shelves on each level being provided with as many protecting-pockets as there are cables passing through the inlets on said level to provide a substantially continuous protecting-pocket for each cable between inlets. 55 60

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