C. H. HOOK & W. J. BURKART.

CONDUIT SUPPORT.

APPLICATION FILED DEC. 19, 1917.

1,274,715. Patented Aug. 6, 1918.

FIG.1.

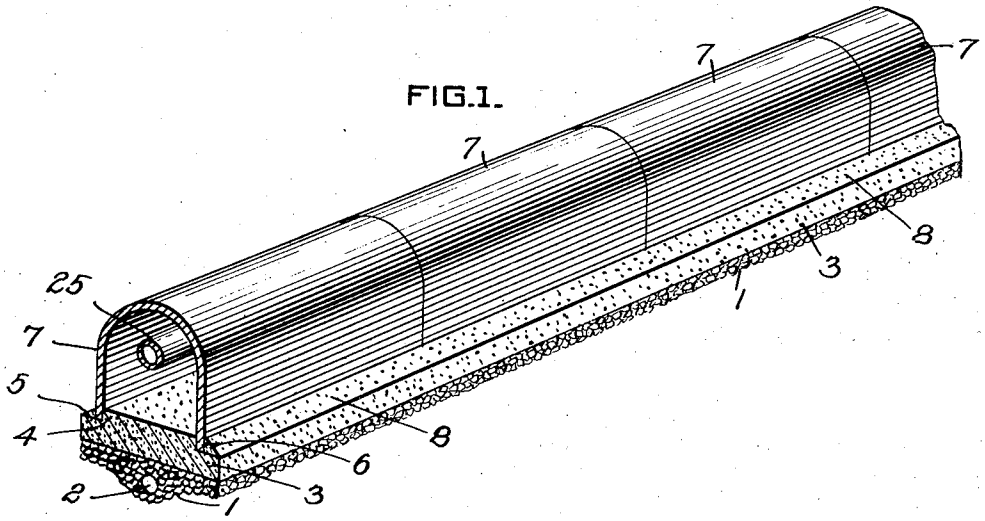


FIG.2.

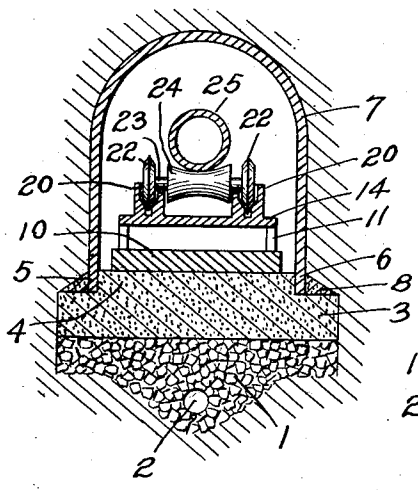


FIG.3.

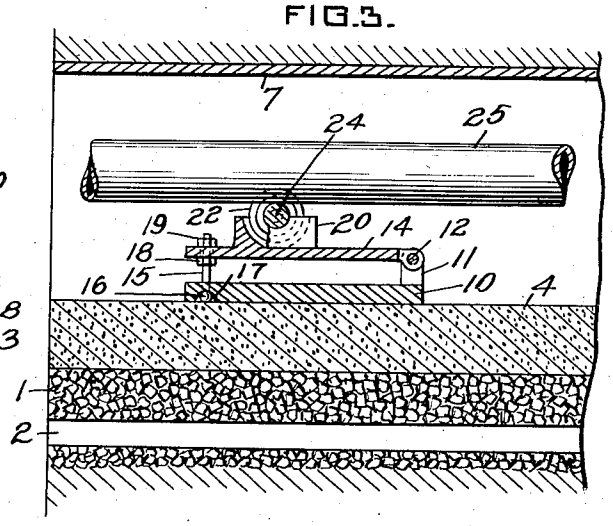


FIG.5.

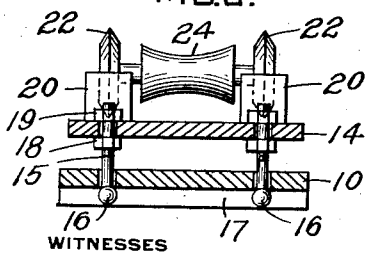
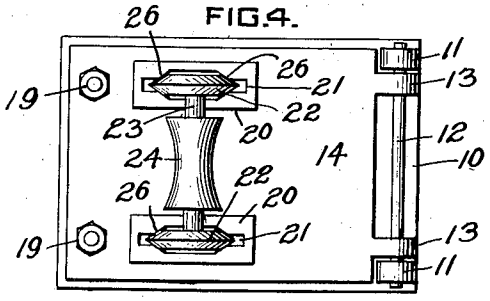


FIG.4.



WITNESSES

J. Herbert Bradley.

INVENTORS:

Charles Howard Hook

William J Burkart

by Jas Bailey Brown

their Attorney

UNITED STATES PATENT OFFICE.

CHARLES HOWARD HOOK AND WILLIAM JOSEPH BURKART, OF PITTSBURGH, PENNSYLVANIA.

CONDUIT-SUPPORT.

1,274,715. Specification of Letters Patent. Patented Aug. 6, 1918.

Application filed December 19, 1917. Serial No. 207,937.

To all whom it may concern:

Be it known that we, CHARLES HOWARD HOOK and WILLIAM J. BURKART, residents of Pittsburgh, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Conduit-Supports, of which the following is a specification.

This invention relates to conduits for pipes.

The objects of the invention are to provide a support to go in an underground or closed conduit which will permit the ready longitudinal movement of a pipe supported thereon, which will be self lubricating, and which will be adjustable in height. Other objects of the invention will appear more fully in the following specification, and will be apparent to those familiar with the art.

Referring to the drawings, Figure 1 is a perspective view of the assembled conduit, with a pipe in position therein; Fig. 2 is a vertical cross section through the conduit in position under ground, a pipe therein, and one of the supporting members for the pipe; Fig. 3 is a longitudinal section through a portion of the conduit, showing the pipe and its supporting member; Fig. 5 is a section through a pipe support; and Fig. 4 is a plan view of the pipe supporting construction.

In many cases it is desirable to put pipes in conduits underground. This is particularly true in case of pipes used to carry steam for heating purposes. Such pipes are subject to considerable variation in length because of contraction and expansion with changes of temperature, and therefore it is desirable to have supporting members allowing the ready adjustment in length incident to such expansion and contraction. For this purpose we have constructed a special conduit, having a special member designed to be used in combination with it for supporting a pipe.

The conduit itself consists of a crushed stone base 1, preferably having a drain pipe 2 near the bottom of the stone. On this foundation a concrete base 3 is built. The top of the concrete member is formed with a raised middle portion 4, forming two shoulders 5 and 6, running longitudinally on the base. A tile 7 is adapted to seat on the concrete base 3, the edges of the tile just fitting over the raised portion 4, and bearing against the shoulders 5 and 6. Outside of the tile, a joint formed by the tile and base is sealed by a concrete filling 8, running the entire length of the conduit.

The tile is preferably of a special construction, U-shaped in cross section. The interior proportions of the conduit formed are preferably about 10 units across by 12 units high. The sides are straight, connected by a circular arched top. This shape of conduit will go in a narrower ditch and will give the maximum available space for any given size of tile,—considerably more than where the tile is semi-circular. It gives vertical sides through most of the height of the conduit permitting supporting members such as those below described to be used with the greatest possible economy of space, and permitting an effective joint between the tile and its supporting base.

The pipe to be carried by the conduit is supported on a member comprising a base 10, having integral upward extensions 11 at one end, through which pass a pin 12, forming a hinge for lugs 13, on a supporting plate 14, carried at one end by the pin 12, and supported at the other end by bolts 15. These bolts have a rounded head 16, fitting in a groove or cavity 17, in the bottom of the base member 10, and they pass through oval shaped, or enlarged holes in the said member 10, permitting the bolts to be turned out of their vertical position, as they are used to hold the member 14 at various elevations. Nuts 18 and 19, threaded on the upper ends of the bolts 15, furnish means for securing the plate 14 to the bolts, through enlarged or elongated holes therein. The raising and lowering of these nuts permits adjustment of the height of plate 14, as will be apparent.

On the plate 14 are mounted two supporting members 20, each of which consists of an upward extension from said plate, having a recess 21 therein forming bearing for rollers 22, between which extends a spindle 23, the middle portion of which is enlarged to form a concave roller 24, adapted to furnish a seat for a pipe 25, carried in the conduit.

The rollers 21 are beveled edged, and these beveled edges bear against beveled bearing shoulders 26, formed in the walls of the recesses 21. It will be apparent from the cross section shown in Fig. 2, that the

recesses in the bearing members 20 extend below the beveled shoulders 26 and the lower edges of the rollers 22 carried therein. Consequently, when the recesses 21 are filled with oil or grease the roller 22 will be constantly lubricated from oil contained in the bearing itself. This construction insures that the bearings will have a very small amount of friction, and having once been lubricated, they may be depended upon to stay in good condition for a long period of time, which is an important feature since they are to be placed in conduits where access for inspection and lubrication is difficult and infrequent.

We claim:

1. A supporting device for pipes comprising a base, a supporting member pivotally connected at one end to the base, a rotatable pipe rest carried by the supporting member, and means to adjust the height of the free end of the supporting member.

2. A supporting device for pipes comprising a pipe rest carried by a spindle having terminal bevel-edged rollers rotatably mounted in oil-retaining pockets forming bearings for said rollers.

3. A supporting device for pipes in conduits comprising a member pivotally mounted at one end, means to adjust the height of the free end of the member, and a rotatable pipe rest carried on the member.

In testimony whereof we have hereunto set our hands.

CHARLES HOWARD HOOK.
WILLIAM JOSEPH BURKART.