June 27, 1939. J. HOCHBERGER 2,163,947

SEWER ROD GUIDE

Filed Nov. 25, 1936

Fig. 1

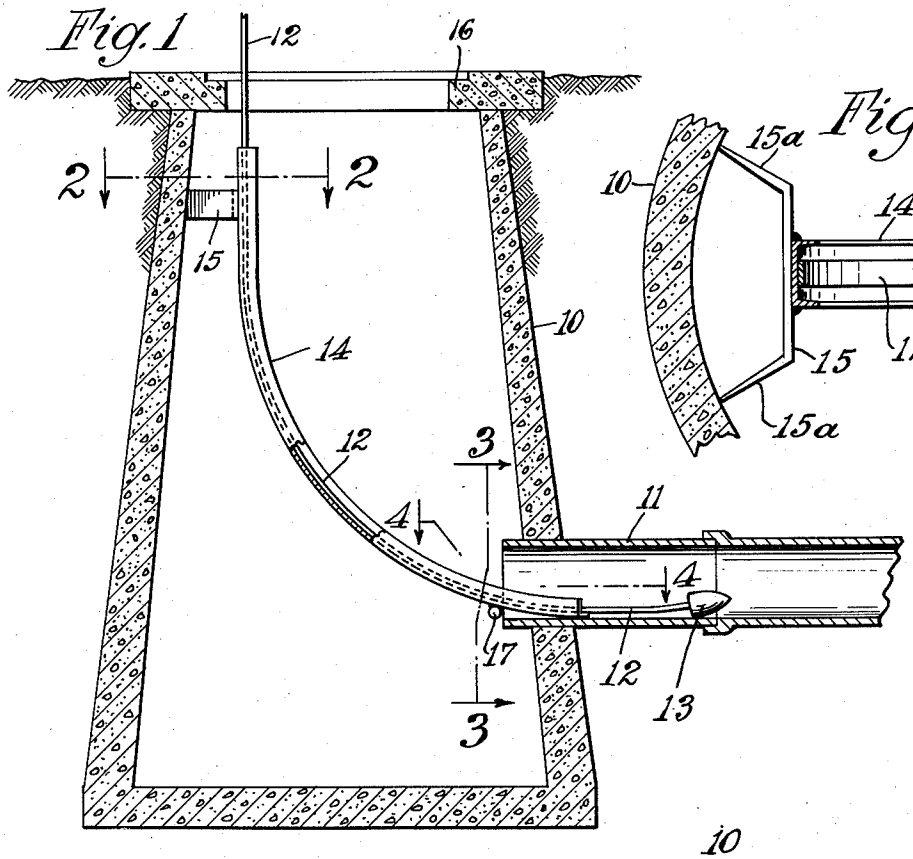


Fig. 2

Fig. 3

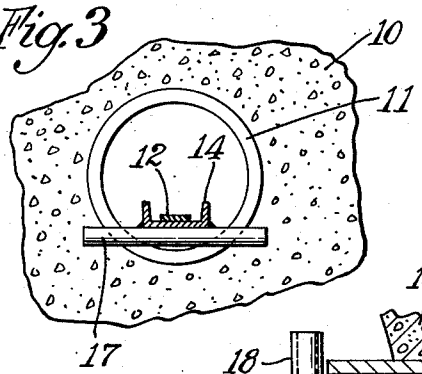


Fig. 4

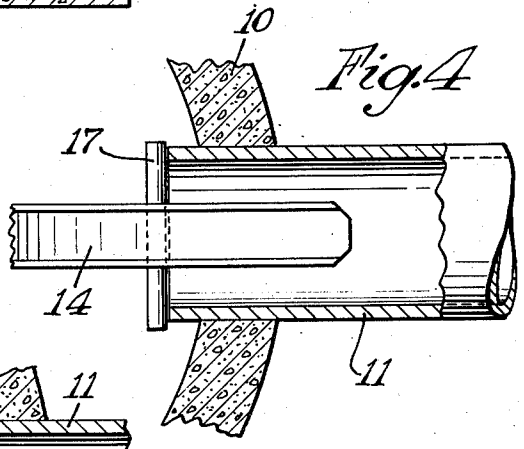
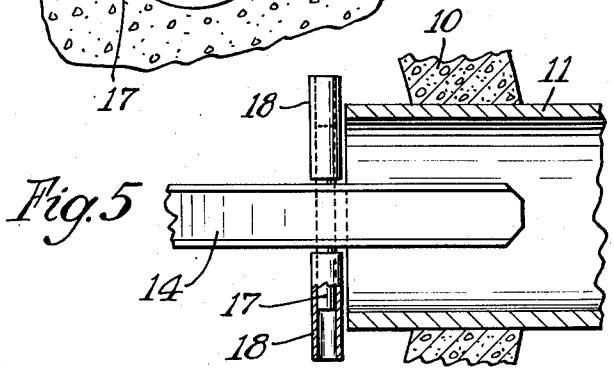


Fig. 5



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SEWER ROD GUIDE

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4 Claims. (Cl. 15—104.30)

This invention relates to improvements in sewer rod guides.

In removing obstructions from sewer pipes, especially pipes leading from catch basins, flexible rods are employed which are lowered through the manhole of the basin and directed into the pipe which is to be cleaned. It generally is necessary for a workman to enter the basin and to operate the rod, since due to its flexibility, it cannot well be operated from above the basin. Generally there is room in the basin only for one man, and frequently a single workman cannot in the relatively small space available exert sufficient pressure on the rod to remove the obstruction. It is therefore necessary frequently to make a hole through the floor of the basement to obtain access to the sewer pipe and then remove the obstruction by operating a clean-out rod through the hole in the floor.

An object of the present invention is to provide a guide for a sewer rod which may be lowered into the catch basin and within which guide the conventional sewer rod can be operated by one or more men from the exterior of the basin.

A further object of the invention is to provide a sewer rod guide having means for stabilizing the guide during use to prevent tilting to one side or the other and also stop means at the lower end of the guide to limit inward movement of the guide into the pipe being cleaned.

Other objects relate to various features of construction and arrangement of parts which will be apparent from a consideration of the following specification and accompanying drawing, wherein:

Figure 1 is a vertical sectional view through a conventional catch basin showing the improvements in position therein.

Figure 2 is an enlarged broken sectional view taken on line 2—2 of Figure 1.

Figure 3 is a sectional view taken on line 3—3 of Figure 1.

Figure 4 is a sectional view taken on line 4—4 of Figure 1.

Figure 5 is a view corresponding in position to Figure 4, but showing the stop member provided with extensions for accommodating the device for use with a pipe of greater diameter than is shown in the preceding figures.

In Figure 1 of the drawing, 10 indicates a conventional catch basin in vertical section into which extends a pipe 11 which carries waste material from a sink or the like to the basin. In removing obstructions from the intake pipes, sewer rods are employed such as that indicated by numeral 12 in the drawing, the rod generally comprising a flat flexible bar provided with a head 13.

A guide indicated generally by the numeral 14 for guiding the sewer rod 12, and enabling the same to be operated by one or more men standing above the manhole, is formed of channel iron and shaped generally as indicated in Figure 1, that is, it is curved or bowed to enable the lower end to enter the open end of the pipe 11. The upper end is disposed adjacent the top of the manhole. Adjacent the upper end of the guide 14 a stabilizing member 15 is provided. This member 15 can be formed of a strap of metal welded or otherwise secured to the flat rear face of the guide, and preferably is provided with a pair of legs 15a which rest against the wall of the basin. The member 15, as will be seen in Figure 1, spaces the uper end of the guide away from the wall of the basin a distance sufficient to enable the sewer rod to clear the rim 16 of the manhole.

Adjacent the lower end of the guide suitable means are provided for restraining inward movement of the guide during the reciprocating motion of the sewer rod 12. This restraining member or stop preferably is in the form of a transverse rod 17 welded to the flat rear face of the guide and is provided with ends which project laterally of each side of the guide.

The projecting ends of the stop 17 will span the end of the pipe 11 when the device is in the position shown in Figure 1, and thus restrain movement of the guide inwardly of the pipe as the rod 12 is forced downwardly. I prefer that the stop member 17 be cylindrical in order that the tubular extension such as lengths of pipe 18 may be slipped over the ends to span sewer pipes of greater size than will be spanned by the stop member 17, as illustrated in Figure 5.

By using a horizontal stop as described, the guide can be inserted in the open end of the pipe which is located relatively close to the bottom of the basin.

In use the workmen force the sewer rods downwardly into the pipe as is shown in Figure 1, the rod being supported throughout its intermediate length by the guide member 14. This arrangement prevents buckling of the flexible rod 12, as will be seen, but upon the upward stroke of the rod much less friction is encountered than would be the case if the guide were of tubular material.

As shown in Figure 4, the lower end of the guide 14 preferably is chamfered at the corners. Frequently the sewer pipes do not enter the catch basins along radial lines, and chamfering

the corners of the guide facilitates entrance of the guide into the pipes at an angle to the axis of the pipes. It will be seen that as the sewer rod is forced into the pipe against the obstruction therein, it will flex only as permitted by the shape of the guide, and workmen pressing down on the upper end of the rod can exert considerable force against the obstruction without the necessity of entering the catch basin.

In use I prefer that the width of the channel of the guide 14 in which the sewer rod operates be substantially twice the width of the sewer rod itself, to facilitate the initial disposition of the sewer rod within the channel.

While I have shown and described an embodiment of my improvements for the purpose of illustration, I do not wish to be restricted specifically thereto except as so limited by the appended claims.

I claim:

1. A sewer rod guide comprising a substantially inflexible bowed member having an open channel in the upper face thereof within which a flexible sewer rod is operable, a stop secured adjacent the lower end of said member for limiting inward movement thereof with respect to a pipe to be cleaned and stabilizing means adjacent the upper end of said member for resisting tilting action of said member during the manipulation of a sewer rod within said upper channel.

2. A sewer rod guide for use in catch basins comprising a bowed member having an open channel in the concave face thereof within which a flexible sewer rod is operable, said member having a stop at the lower end for limiting movement thereof inwardly of a pipe to be cleaned, and a stabilizing element adjacent the upper end of said member and attached thereto and adapted to rest against the side of the catch basin opposite said pipe for resisting tilting action thereof.

3. A sewer rod guide for use in catch basins comprising a bowed self-supporting member having an open channel in the concave face thereof within which a flexible sewer rod is operable, and a transverse stop secured to the lower end of said member and of a length to span the pipe to be cleaned for limiting movement of said member inwardly of the pipe.

4. A sewer rod guide comprising a bowed member having a longitudinal passage for longitudinally guiding a flexible sewer rod operable within said passage, a transverse stop secured to said member adjacent the lower end thereof and projecting laterally from opposite sides thereof for spanning the open end of a pipe to be cleaned for limiting inward movement of the member with respect to the pipe, and removable members telescoped upon the ends of said stop for spanning pipes of greater diameters.

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