

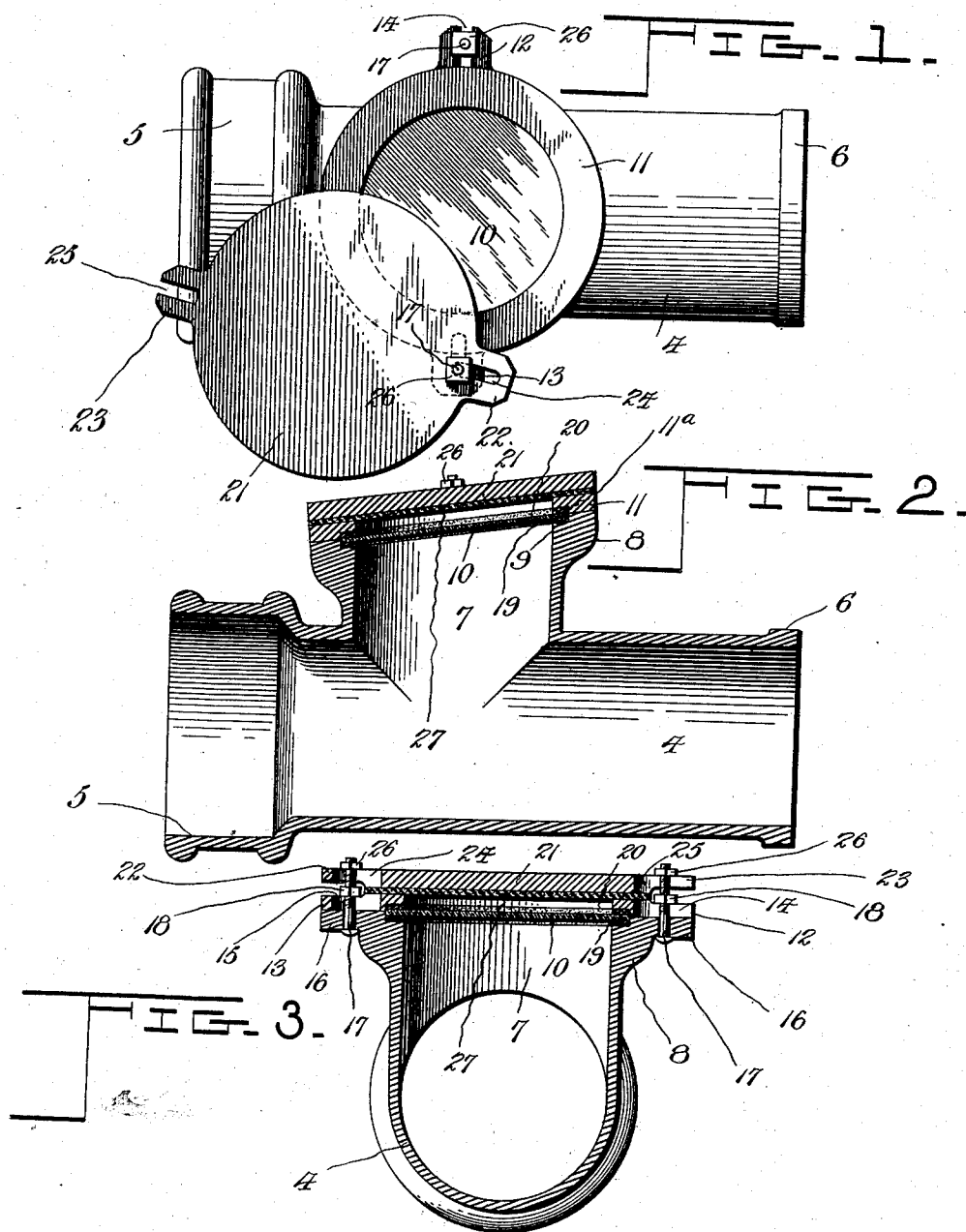
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J. A. GODIN.
ATTACHMENT FOR SOIL PIPES.

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NO MODEL.



Witnesses:

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ATTACHMENT FOR SOIL-PIPES.

SPECIFICATION forming part of Letters Patent No. 743,269, dated November 3, 1903.

Application filed October 16, 1902. Serial No. 127,460. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH ALEXANDRE GODIN, a subject of the King of Great Britain, residing at St. Johns, county of St. Johns, Province of Quebec, Canada, have invented certain new and useful Improvements in Attachments for Soil-Pipes; and I do hereby declare that the following is a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to a device to be attached to or inserted in soil and other drain pipes and the like to allow the ready inspection and, when necessary, cleaning thereof without the necessity of taking apart the pipe should it become obstructed or of fishing through the same, as frequently is necessary with the present system; from the open end thereof and around traps and bends, which makes the work both difficult, tedious, and uncleanly.

An essential feature of my invention consists in an opening in the side of the pipe, which is closed by a cover, and the latter is made readily removable, whereby the inside of the pipe may be got at, and in order to allow of the ready inspection of the pipe without cutting it out of service the opening is provided beneath the cover with a partition-wall of glass or other transparent material, which permits the interior of the pipe to be seen in order to locate the obstruction.

Another feature of my improvement is the provision of a double removable door, the inner one of which covers and retains in place the said glass partition, while the upper one of which is made of metal, such as cast-iron or other solid material, and is provided with a hermetic joint, which avoids the risk of accident by not only protecting said glass against fracture from without, but also forestalling the possibility of leakage or escape of the contents of the soil or drain pipe in case the glass should become broken by excessive pressure.

Still another feature of my improvement consists in the peculiar form of doors, both of which are provided with slotted extremities at each end, the slot in one end being open and the door being held when closed by a pair of bolts passing through each slot and

the slots being so arranged that when the bolts are loosened, which may be accomplished with either door separately by means of separate nuts clamping each door, the door may be readily slid back, so as to release the bolt from the open slot and allow the door to turn edgewise around the bolt passing through the closed slot thereof as a hinge.

My invention consists, further, in the peculiar construction and combination of parts, which will be set forth in the accompanying description and particularly pointed out in the claims.

I have shown the most approved form of my attachment in the accompanying drawings, wherein—

Figure 1 is a face view of a joint of pipe provided with my attachment. Fig. 2 is a central longitudinal section thereof at right angles to Fig. 1, and Fig. 3 is a transverse section centrally through the attachment in a plane at right angles to Fig. 2.

4 is a short joint or length of pipe having at one end a bell 5 and at the opposite end a spigot-bead 6 of the ordinary pattern and formed thus to be inserted as a part of the length of the drain-pipe to which it is to be attached. This joint or length of pipe is made of cast-iron ordinarily and will be inserted at intervals of several feet or yards in the pipe, according as may be desired. From a point in the length between the bell and spigot thereof there arises a transverse T branch 7, which is open at its outer end and provided with an annular reinforcement 8, which is provided around its inner edge with a rabbeted groove 9, adapted to form a seat for a disk of strong plate-glass 10, which is of the same diameter as the outer edge of said groove. This disk of glass is confined in its position by a clamping-ring 11, which is internally rabbeted, as shown at 11^a, and provided at opposite extremities of a diameter with a pair of slotted ears 12 and 13, the ear 12 at one side having an open slot 14 therein, while the opposite ear 13 is provided with a closed slot 15. The reinforcement 8 of the branch is likewise provided with a corresponding pair of ears 16, cast integral therewith, and through each of which passes a bolt 17, whose head is seated on the lower side of said ear 16, and the clamping-ring 11 is

clamped in place by a pair of nuts 18, carried by each bolt and seated on the upper side of the slots 14 and 15.

In order to provide a hermetic joint or seal between the glass plate and the branch and likewise between the branch and the clamping-ring, I provide gaskets 19 and 20, respectively located above and below said glass plate and between the plate and the end 8 of the branch and between the plate and the clamping-ring, these gaskets being made of resilient material—such as leather, rubber, or similar packing—whereby the tightening up of the nuts 18 will cause the clamping-ring to tightly grip the plate and prevent the same from being moved from position, as well as from being broken by any slight jar or pressure. The glass plate 10 thus provides a transparent inspection - aperture through which the contents and condition of the pipe may be viewed, and by passing from one to another along the length of pipe the point of obstruction may be readily located, and thereupon the pipe may be opened at the proper point by simply sliding back the clamping-ring 11 upon the slotted ears 12 and 13 until the ear 12 is disengaged from the bolt 17, whereupon said ring may be turned to release the glass plate, and the latter removed and access to the interior of the pipe can be had, and upon closure of the pipe the reverse operation is carried out, as will be readily understood, and this can be done in a few minutes.

In order to protect the glass plate against possible breakage either from without or by excessive pressure from within the pipe or which might be caused by any defect, such as a crack in the glass, I provide, further, a closure plate or door 21, which is in the form of a disk or so-called "blank flange" provided with a pair of opposite ears 22 and 23, and thus being of the same exterior form as the ring 11, and this, like the other metallic parts of my device, will be ordinarily made of cast-iron, although I do not of course confine myself to the use of that material. The ears 22 and 23 are slotted, as shown at 24 and 25, in the same manner as the ears 12 and 13, and the bolts 17 are prolonged to pass through these ears and provided with secondary nuts 26 to clamp the said door thereon, so that upon releasing said nuts the plate 21 may be slid back and disengaged from the bolt 17, passing through the open slot 25 in the same manner as the clamping-ring 11. Immediately under the plate 21 and between it and the clamping-ring 11 I place a packing disk or gasket 27, of leather, rubber, or other suitable material, said gasket being adapted to form a hermetic joint between the ring and the plate and to form a tight closure for the opening.

In many cases—as, for instance, where the pipe is placed in upright position—it will be advantageous to form the upper side of the branch 7 at a slight angle to the length of

the pipe in order to facilitate inspection from above or in a downward direction into the pipe, as shown in Fig. 2 of the drawings.

The advantages of my improvement will be obvious from the foregoing description and do not require further explanation.

While I have shown in the accompanying drawings the preferred form of my invention, it will be understood that I do not limit myself to the precise form shown, for many of the details may be changed in form or position without affecting the operativeness or utility of my invention, and I therefore reserve the right to make such modifications as are included in the scope of the following claims.

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

1. An attachment for drain-pipes and the like comprising a pipe - section having a branch, a disk of transparent material closing the open end of said branch, a clamping-ring adapted to cover said disk and secure the same, said clamping-ring having an open radial slot and a closed radial slot disposed respectively at opposite sides of the diameter thereof, and bolts passing through said slots to clamp said ring in position.

2. An attachment for drain-pipes and the like comprising a pipe - section having a branch, a disk of transparent material closing the open end of said branch, a clamping-ring provided with ears at opposite extremities of a diameter, an open slot in one ear, and a closed slot in the other, said slots being disposed substantially in the same direction, and clamping-bolts passing through each of said slots to secure the ring to the end of the branch, whereby said ring may be drawn back to release the open slot from its securing-bolt and allow the ring to be turned about the other as a hinge.

3. An attachment for drain-pipes and the like comprising a pipe - section having a branch, a reinforced periphery on the end of said branch, and a pair of ears extending laterally therefrom at opposite ends of a diameter, a disk of transparent material seated in a rabbeted groove formed around the interior edge of said reinforced periphery, a rabbeted clamping-ring adapted to be secured over the edges of said disk and having ears thereon corresponding to the ears on said branch, one of said ears on the ring having an open radial slot and the other a closed radial slot, bolts adapted to pass through said ears and the ears on the branch to clamp the same together, and packing-gaskets above and below said glass plate seated in the rabbets or grooves of said branch and ring.

4. An attachment for drain-pipes and the like comprising a pipe - section having a branch, a blank flange or plate closing the open end of said branch and having an open and a closed elongated slot formed therein, said slots being disposed substantially in the

same direction, bolts passing through said slots to secure said plate to the open end of the branch, and clamping-nuts on said bolts to retain said plate in place, whereby on releasing said nut said plate may be drawn back and released from one of said bolts while turning about the other as a hinge.

5. An attachment for drain-pipes and the like comprising a branch, a plate or disk adapted to close the open end of said branch and having ears thereon at opposite extremities of a diameter, said ears having respectively an open and a closed slot therein, said slots being disposed substantially in the same direction, and bolts passing through said slots to removably and pivotally secure said plate to the open end of said branch.

6. An attachment for drain-pipes and the like comprising a branch, a plate or disk adapted to close the open end of said branch and having ears thereon at opposite extremities of a diameter, said ears having respectively an open and a closed slot radially disposed therein, bolts passing through said slots to removably and pivotally secure said plate to the open end of said branch, and a disk or washer of packing material inserted between said plate and the open end of the branch.

7. An attachment for drain-pipes and the like comprising a pipe-section having a branch, a disk of transparent material closing the open end of said branch, a clamping-ring having an open and a closed slot at opposite sides thereof, bolts passing through said slots to secure said ring to the end of the branch, and a cover of solid material having corresponding open and closed slots therein through which said bolts pass to secure the same above said clamping-ring.

8. An attachment for drain-pipes and the like comprising a pipe-section having a branch, a disk of transparent material closing the open end thereof, a rabbeted clamp-ring having ears at opposite sides thereof and said ears having open and closed slots respectively, a cover-plate having similar ears with open and closed slots located over said clamping-ring, and a pair of bolts secured in the periphery of the branch and passing through the slots in both plates and secured to the same by independent nuts.

9. An attachment for drain-pipes and the like comprising a pipe-section having a branch, a reinforced periphery on said branch and a pair of lugs or ears extending laterally

therefrom at opposite sides thereof, bolts projecting outwardly through said ears, a glass disk seated in a rabbeted groove around the inner edge of said branch, suitable packing-washers on each side of said disk to form a resilient support and a hermetic seal therefor, a counter-rabbeted clamping-ring having ears at opposite ends thereof and said ears having open and closed slots respectively through which said bolts are adapted to pass, a cover-plate having similarly-slotted ears likewise embracing said bolts and located over said clamping-ring, suitable packing material interposed between said plate and ring, and independent nuts on said bolts seated upon and securing independently the clamping-ring and cover-plate.

10. A cover for drain-pipes and the like comprising a disk or plate having radial ears at opposite sides thereof, an open radial slot in one of said ears, and a closed radial slot in the other ear, in conjunction with bolts rising from the flange of the opening with which said ears are adapted to engage when the plate is in closed position, whereby a radial movement of said plate is necessary in order to disengage it from said bolts.

11. In an attachment for drain-pipes, the combination with the open end of a pipe, a plate adapted to close the same, a clamping-ring over said plate having radial slots in opposite sides thereof, and bolts rising from the face of the end of the pipe with which said radial slots are adapted to engage when said ring is concentric with said pipe and requiring said ring to be slid radially before it can be disengaged from said bolts.

12. In an attachment for drain-pipes and the like, in combination with the open end of a pipe, a plate adapted to close said open end, bolts set diametrically in the flange of the pipe and parallel to the axis thereof, a clamping-ring having oppositely-disposed radial slots, one of which is open, engaging with the respective bolts, and a cover-plate over said ring having similar open and closed diametrically-disposed radial slots therein adapted to engage with the ends of said bolts.

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

JOSEPH ALEXANDRE GODIN.

Witnesses:

J. A. MARION,

T. MYNARD.