No. 662,342. Patented Nov. 20, 1900.

J. W. BERRY.

PIPE HOOK.

(Application filed Mar. 1, 1900.)

(No Model.)

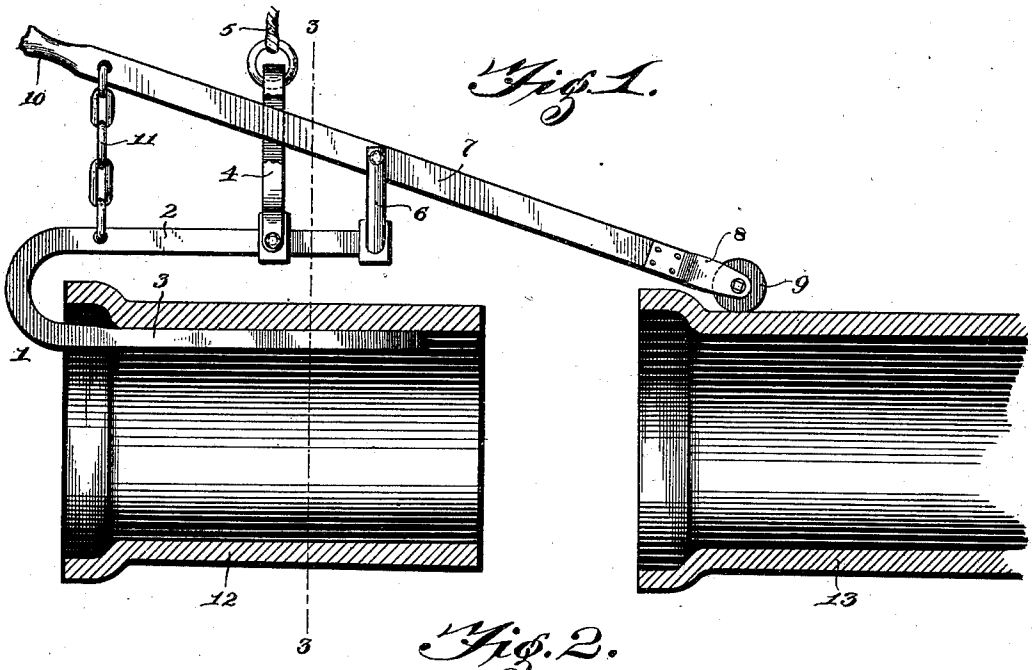


Fig. 1.

Fig. 2.

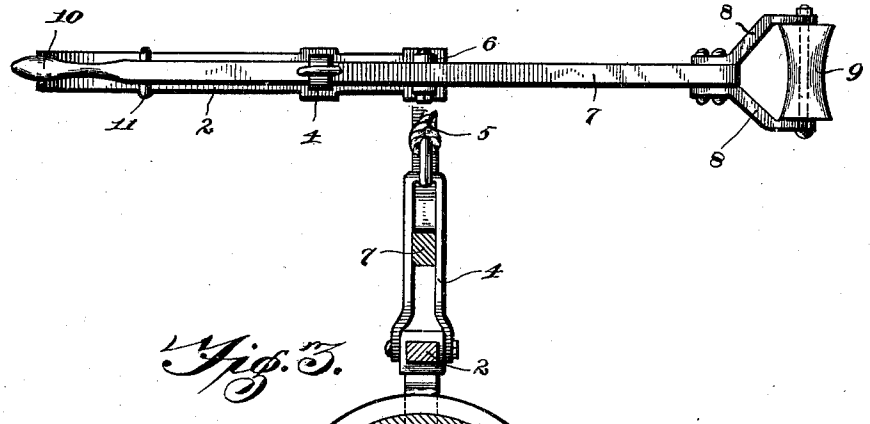


Fig. 3.

Witnesses
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UNITED STATES PATENT OFFICE.

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PIPE-HOOK.

SPECIFICATION forming part of Letters Patent No. 662,342, dated November 20, 1900.

Application filed March 1, 1900. Serial No. 7,014. (No model.)

To all whom it may concern:

Be it known that I, JAMES W. BERRY, a citizen of the United States, residing at Iowa City, in the county of Johnson and State of Iowa, have invented a new and useful Pipe-Hook, of which the following is a specification.

This invention relates to pipe-hooks for lowering sewer-pipes into a trench, and has for its object to provide an improved device of this character which is especially designed for fitting the spigot end of one pipe-section into the bell end of another section, so as to prevent chipping of the adjacent ends of the pipes and also to prevent the mortar or cement from being pushed into the interior of the pipe and form obstructions therein, which impede the flow of water.

Heretofore there has been no means provided whereby the workman in the trench may handle the pipe after it has been lowered, but he has been entirely dependent upon what help the man lowering the pipe may be able to give by raising or lowering the pipe according to the directions of the workman in the trench. By this method the pipe-section to be laid is often violently swung against the pipe already laid, thereby resulting in both pipes being chipped, the mortar or cement being pushed into the interior of the pipe, and frequently the pipe-sections already laid are forced out of position and the joints broken or damaged.

In view of these difficulties and disadvantages the present invention has been especially designed to provide means for manipulation by the workman in the trench after the pipe-section has been lowered, whereby the said pipe may be conveniently and effectively fitted into the bell of the pipe already laid without the assistance of the workman who lowered the pipe and without chipping or otherwise damaging the several pipe-sections.

With these and other objects in view my invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is a side elevation of a pipe-hook constructed and arranged in accordance with the present invention and shown in position for fitting a pipe-section. Fig. 2 is a top plan view thereof. Fig. 3 is a transverse sectional view taken on the line 3 3 of Fig. 1.

Corresponding parts in the several figures of the drawings are designated by like characters of reference.

Referring to the accompanying drawings, 1 designates a substantially U-shaped hook having the substantially parallel upper and lower arms 2 and 3, respectively. Secured intermediate of the opposite ends of the upper arm 2 is an inverted substantially U-shaped link 4, to the upper end of which is connected the rope, cable, or chain 5, whereby the device may be lowered into a trench. Provided at the forward or free end of the upper arm 2 is an upstanding substantially U-shaped bearing-clip 6, between the opposite sides of which is fulcrumed a lever 7, the forward end of which is provided with a fork or yoke 8 to carry the concaved roller 9. The forward end of this lever extends a suitable distance beyond the free ends of the arms of the hook, and its rear end terminates substantially at the rear end of the hook and is provided with a suitable handle or hand-grasp 10. The rear end of the lever is connected to the rear end of the hook by means of a chain or other flexible connection 11 to limit the upward movement of the rear or handle end of the lever.

In the operation of the device the lower arm of the hook is inserted into the bell end of the pipe-section 12, which is to be fitted to the pipe-section 13, that has already been laid, the link 4 or the point of support being adjusted to the center of gravity of the pipe, so that the latter may hang in a horizontal position and not be tilted or inclined. The pipe and the hook are then lowered into the trench by means of the cable, after which the roller 9 is placed upon the upper side of the pipe 13 and the rear end of the handle manipulated to elevate the pipe and push the latter forward to enter its spigot end into the bell of the pipe 13 in an accurate manner and

without chipping or otherwise damaging the adjacent pipes or the joints of the pipe-sections already laid. It will now be apparent that the roller 9 is concaved to fit the pipe and to travel readily thereon without slipping laterally, thereby forming a traveling fulcrum for application to an external support, and the link 4 loosely embraces the lever to permit of the convenient manipulation thereof, while the flexible connection 11 elevates the pipe-section when the handle of the lever is raised.

From the foregoing description it will be seen that the workman in the trench may accurately fit the pipe without the assistance of the workman who lowered the pipe, and also this operation may be easily and conveniently accomplished through the manipulation of the lever. After the pipe has been fitted in place the hook is withdrawn from the outer or bell end of the pipe and sent up for another pipe-section.

What I claim is—

1. A device of the class described, comprising a pipe-engaging device, means for raising and lowering the same, and a lever connected to the pipe-engaging device, and having one end serving as a fulcrum for engagement with an external support.

2. A device of the class described, comprising a pipe-engaging device, means for raising and lowering the same, and a lever connected to the pipe-engaging device, and also provided with a traveling fulcrum for engagement with an external support.

3. A device of the class described, comprising a hook for engagement with a pipe-section, a raising and lowering device therefor, and a lever mounted intermediate of its ends upon the hook, the forward end thereof projecting in advance of the hook, and a flexible connection between the rear portion of the lever and the hook.

4. A device of the class described, comprising a hook for engagement with a pipe-section, a raising and lowering device therefor, and a lever mounted intermediate of its ends upon the hook, the forward end of the lever projecting in advance of the hook, and provided with a roller, and a flexible connection between the rear portion of the lever and the hook.

5. A device of the class described, comprising a hook for engagement with a pipe-section, a raising and lowering device therefor, a lever connected to the hook and projecting in advance thereof, a fork or yoke at the forward end of the lever, and a concaved roller mounted within the fork or yoke.

6. A device of the class described, comprising a hook for engagement with a pipe-section, a substantially U-shaped link connected to the hook, a raising and lowering device connected to the link, and a lever mounted intermediate of its ends upon the hook and projecting loosely through the link.

7. A device of the class described, comprising a substantially U-shaped hook, a substantially U-shaped link connected to one arm of the hook, a raising and lowering device connected to the link, a lever mounted intermediate of its ends upon the link-arm of the hook and extending loosely through the link, the forward end of the lever extending in advance of the hook, and provided with a roller, and a flexible connection between the rear portion of the lever and the hook.

8. A device of the class described, comprising a horizontally-disposed substantially U-shaped pipe-engaging hook, a lever pivoted intermediate of its ends at the outer end of the upper arm of the hook, a flexible connection between the opposite end of the arm and the lever, and means connected to the arm at a point intermediate of the connections between said arm and the lever for raising and lowering the hook.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JAMES W. BERRY.

Witnesses:
R. P. HOWELL,
BURT F. BALE.