

(No Model.)

C. F. SCHILLING.
PIPE HOOK.

No. 597,438.

Patented Jan. 18, 1898.

Fig. I.

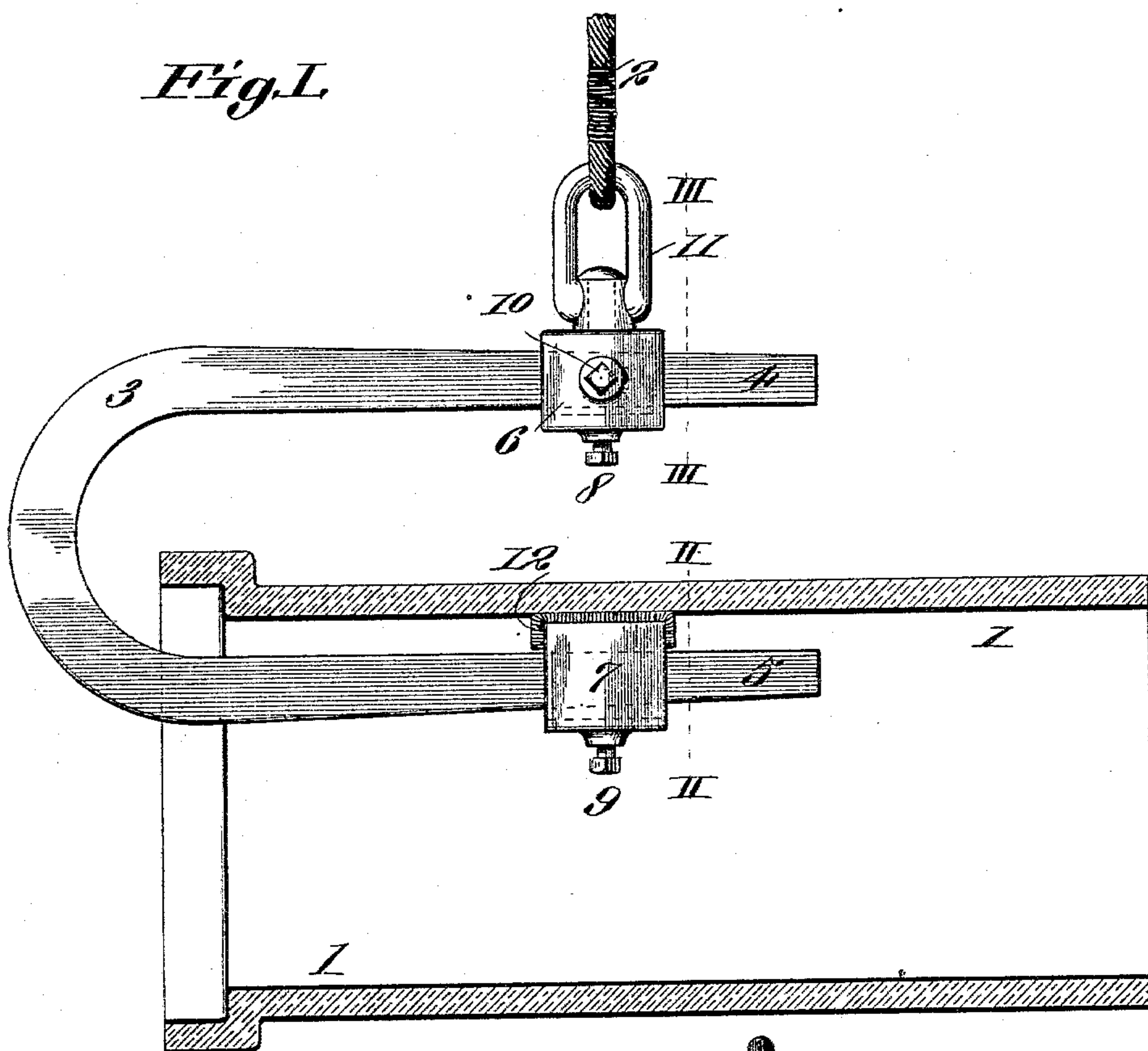


Fig. II.

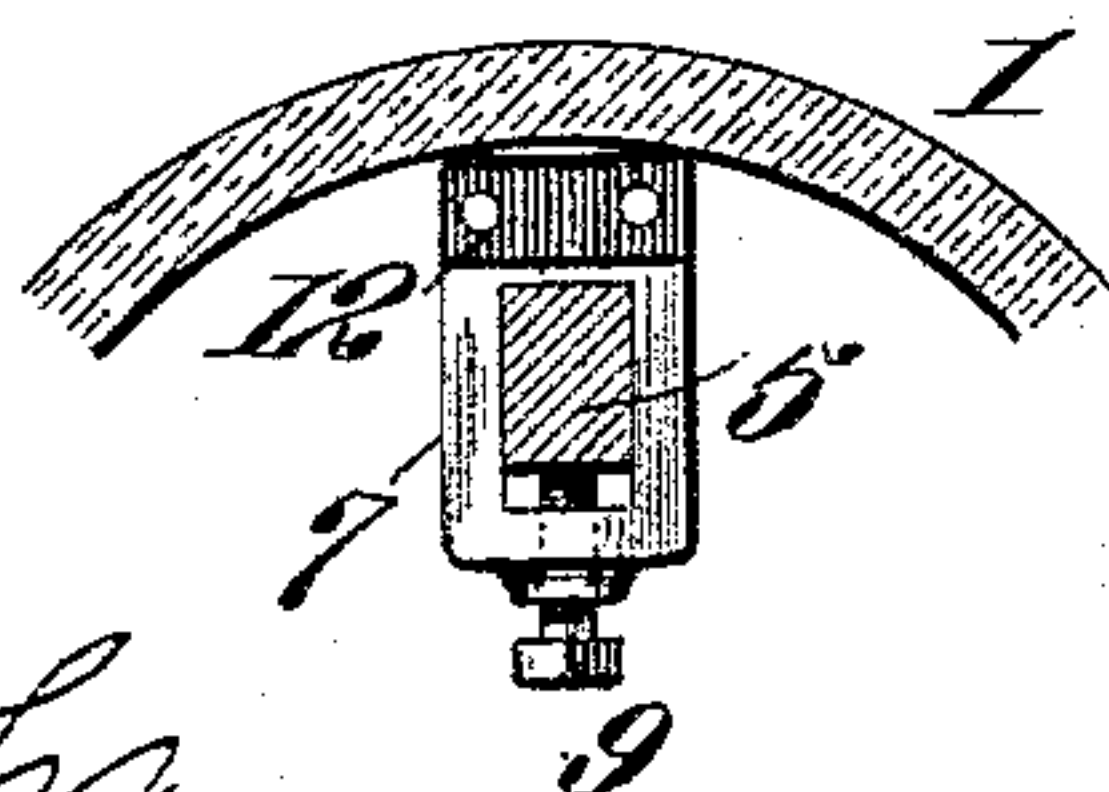
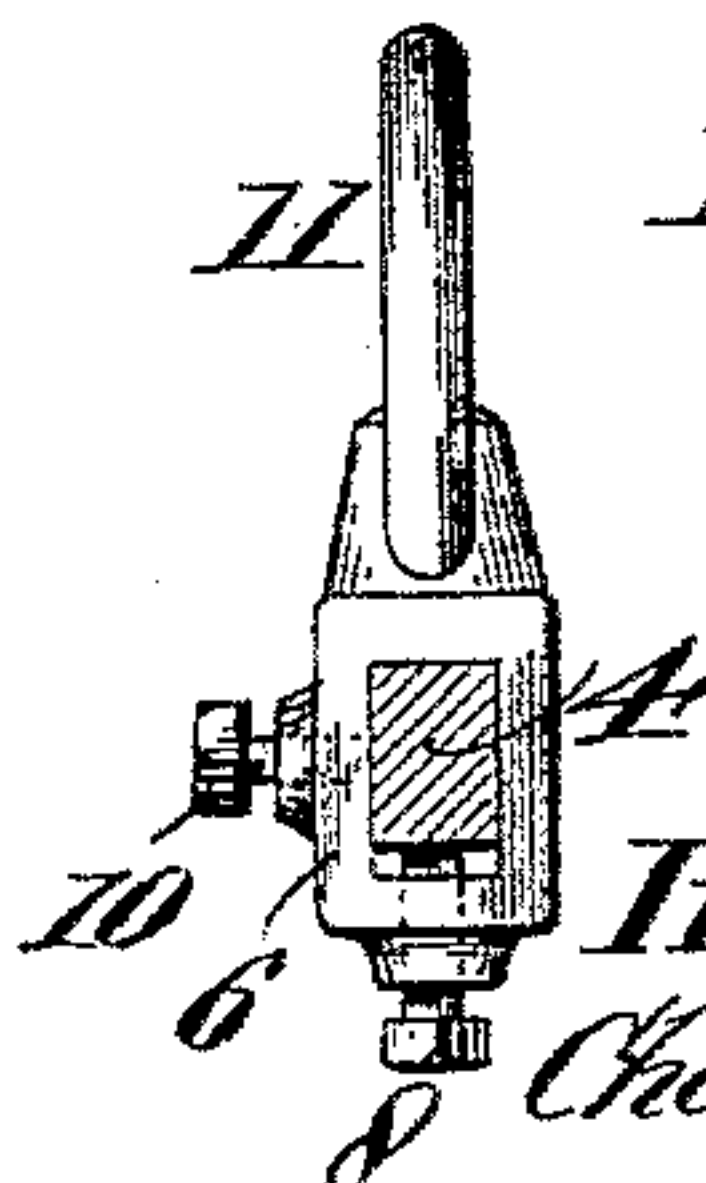


Fig. III.



Attest

E. J. Knight
Stanley Stoner

Inventor:

Charles F. Schilling

By Knight & Bro
attys

UNITED STATES PATENT OFFICE.

CHARLES F. SCHILLING, OF ST. LOUIS, MISSOURI.

PIPE-HOOK.

SPECIFICATION forming part of Letters Patent No. 597,438, dated January 18, 1898.

Application filed September 7, 1897. Serial No. 650,839. (No model.)

To all whom it may concern:

Be it known that I, CHARLES F. SCHILLING, a citizen of the United States, residing at the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Pipe-Hooks; of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

It has heretofore been the practice in handling large drain or sewer pipes to place the same in position by means of a rope or chain passing around the said pipe and then engage the said chain in a rope operated by a derrick. Such large pipes are too heavy and bulky to manipulate by hand, and the old method rendered it impossible to handle them quickly and accurately.

The object of my invention is to provide a hook adapted to be hung upon the derrick-rope and to support the pipe from the inside, so that the same may be quickly and conveniently put in place with a minimum amount of labor. I accomplish this object by means of the device illustrated in the accompanying drawings, in which—

Figure I shows the hook in side elevation, a portion of the derrick-rope, and a longitudinal section of the pipe. Fig. II shows a cross-section of the lower arm of the hook and a cross-section of a portion of the pipe. Said figure is taken along the line II II of Fig. I. Fig. III shows a cross-section of the upper arm and an end elevation of the connection between the derrick-rope and the hook and is taken along the line III III of Fig. I.

1 is the pipe, which comes in various sizes, both as to diameter and length.

2 is a derrick-rope which is suspended from a derrick and operated by the usual windlass or in any other suitable manner.

3 is a strong hook, preferably of an approximately U shape, adapted to hang edge up, as shown. It is provided with two parallel arms 4 and 5, on which ride adjustable lugs 6 and 7. These lugs are secured upon the arms 4 and 5 by means of set-screws 8 and 9. If necessary, an additional set-screw 10 may be placed on the side of the lug.

11 is a link attached to the upper lug 6, through which the derrick-rope 2 is adapted to pass.

12 is a cushion or padding secured to the upper surface of the lug 7, adapted to press against the inner surface of the pipe 1 to prevent slipping.

The device is operated as follows: I secure the lugs 6 and 7 to the arms 4 and 5 by means of the set-screws 8 and 9 at a distance from the end of the hook 3 great enough to allow the lug 7 to be introduced into the pipe far enough to be in line with its center of gravity. It will be readily seen that pipes of different lengths will require different adjustment in order that this lug may be placed at the proper point. Both lugs must be adjusted on the hook 3. Otherwise it will hang obliquely when suspended from the derrick. The hook being properly adjusted and in place the pipe is lifted by the rope 2 and swung over and lowered into the trench. There being no bulky rope or chain on the outside of the pipe there is no scraping or tearing of the trench-walls and no trouble whatever to place the said pipe in its proper position.

It is sometimes necessary to handle and place pipe which have auxiliary pipes or necks leading therefrom. In this case the greatest care is necessary to place the pipe in the trench properly, as it cannot be swung after once in position without great trouble. The old manner of handling pipe by surrounding with a rope or chain made this almost impossible, especially with large pipe. With my device the proper angle is obtained by placing the lug 7 on one or the other side of the vertical, as desired, so that when it is lifted the pipe assumes the required position.

Another advantage possessed by this device is that when the end of one pipe-section is put into the collar of the adjoining section the first section is lowered to exactly the right distance and then pushed back into the said collar without disturbing the mortar or other cement. Where outside ropes were used, their removal after the pipe was placed necessitated jarring or otherwise disturbing the pipe. My device overcomes this danger.

I have shown and described a hook with adjustable lugs; but it is obvious that the reason for making the lugs adjustable is for the purpose of adapting it for use with pipes of different lengths. For pipes of one length, even if of different diameters, the horizontal

hook, suitably hung from the derrick-rope at a fixed point, with a fixed cushion or point in line therewith for the pipe to rest upon, could be used.

5 What I have spoken of as a "cushion" is merely a leather seat 12, upon which the inner surface of the pipe 1 is adapted to rest. It is for the purpose of obtaining a proper purchase thereon.

10 In practice I have found it preferable to put the set-screw 8 on the side of the lug 6, as shown by 10, and I have also found it advantageous to construct the hook with the distance between the arms 4 and 5 in about 15 the proportion of six inches for a thirty-inch-diameter pipe. This leaves sufficient space for the lugs 6 and 7 to clear the bell or collar of the pipe, and yet renders the device as compact as possible. The narrower the space 20 between the arms the more easily is the pipe handled.

What I claim, and desire to secure by Letters Patent of the United States, is—

1. A pipe-hook comprising a hook set edge up to provide a horizontal upper arm and a 25 horizontal lower arm, a support whereby the upper arm of the hook is suspended, and a seat for the pipe located on the lower arm below the support; substantially as described.

2. A pipe-hook comprising a hook set edge 30 up to provide a horizontal upper arm, and a horizontal lower arm, a lug adapted to ride on the upper arm provided with a support whereby it is suspended, and a lug on the lower arm for supporting a pipe; substantially 35 as described.

3. A pipe-hook comprising a hook having horizontal arms, lugs adjustable on the arms, means for securing the lugs in place, a supporting-link attached to the upper lug, and 40 a seat secured to the lower lug; substantially as described.

CHAS. F. SCHILLING.

In presence of—

E. S. KNIGHT,

STANLEY STONER.