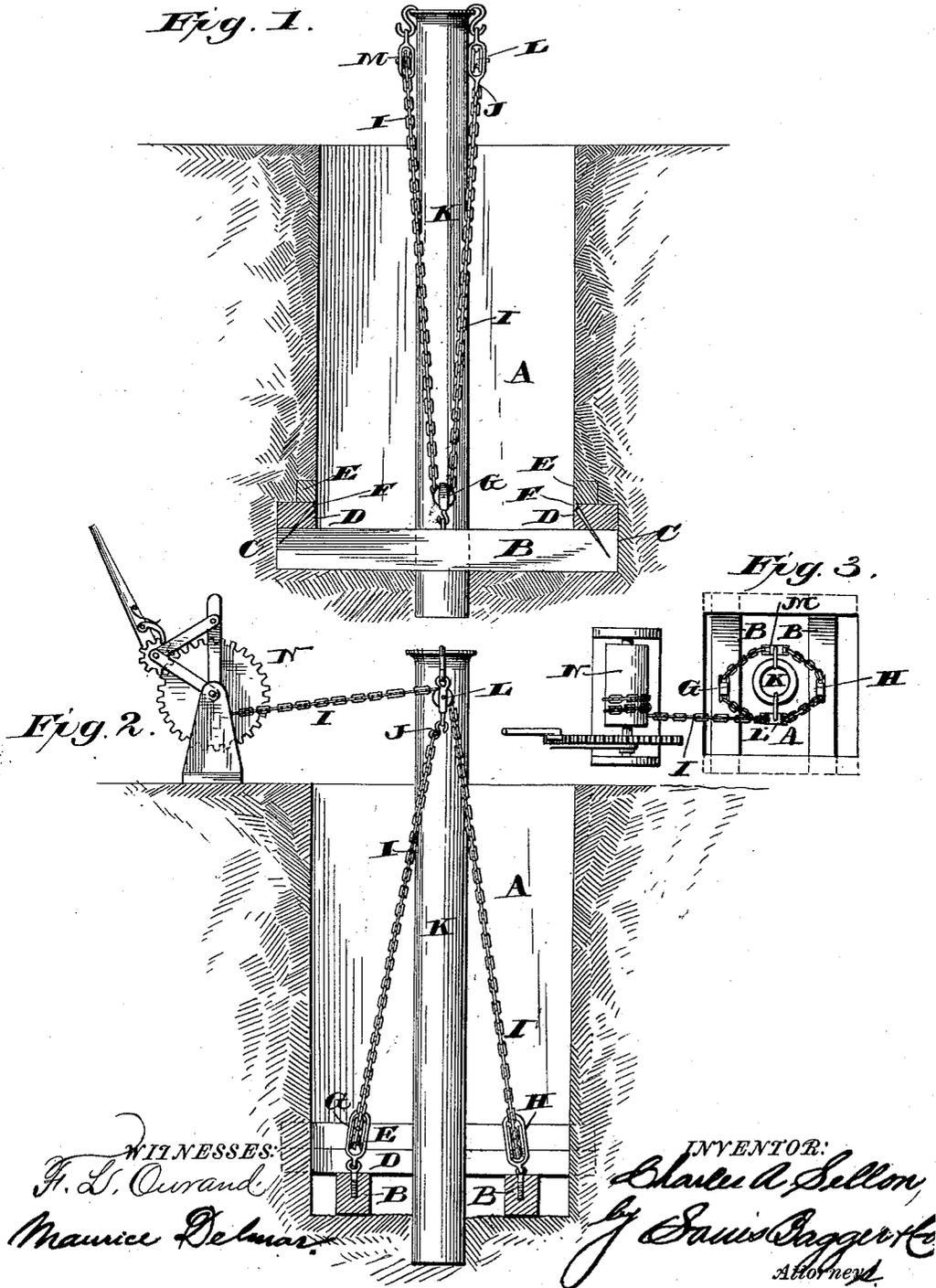


(No Model.)

C. A. SELLON.
APPARATUS FOR SINKING WELL PIPES.

No. 431,920.

Patented July 8, 1890.



UNITED STATES PATENT OFFICE.

CHARLES A. SELTON, OF PIKE, NEW YORK.

APPARATUS FOR SINKING WELL-PIPES.

SPECIFICATION forming part of Letters Patent No. 431,920, dated July 8, 1890.

Application filed April 7, 1890. Serial No. 346,941. (No model.)

To all whom it may concern:

Be it known that I, CHARLES A. SELTON, a citizen of the United States, and a resident of Pike, in the county of Wyoming and State of New York, have invented certain new and useful Improvements in Apparatus for Sinking Well-Pipes; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a vertical sectional view of my rig or apparatus for sinking well-pipe. Fig. 2 is a similar view taken at right angles to the view shown in Fig. 1, and Fig. 3 is a plan view.

Like letters of reference denote corresponding parts in all the figures.

This invention relates to "sinking" or "drawing" well-pipe, in contradistinction to "driving" the pipe, as practiced in the making of so-called "driven wells." This class of wells can be made only where the soil is hard and tenacious, (as in clay, conglomerate rock, and the like;) but it is not adapted for a soft and sandy soil or for quicksands, where the soil through which the pipe is to be forced is so elastic or springy that the pipe cannot be forced into or through it by blows, but only by a gradual, slow, and even pressure from the top, which is technically known as "drawing" the pipe.

Now, the object of my invention is to provide means for the ready accomplishment of this drawing of the pipe into sandy or other soft and yielding soil; and with this object in view my improvement consists in the organized rig or apparatus adapted for such purpose, which will be hereinafter more fully described and claimed.

To carry out my invention, I first dig a pit A at the point where the pipe is to be sunk from five to seven feet in depth. The floor of this pit is smoothed off even, and two heavy timbers B B, each about six by twelve inches and six feet long, are placed in the bottom of the pit parallel to each other and abutting upon opposite sides of the pit, with their ends projecting at right angles to the end walls,

which are undercut, as shown at C, to receive the projecting ends of the parallel beams B B. The ends of the latter are connected by cross beams or timbers D D, each about six by twelve inches and eight feet long, said cross-beams being anchored firmly by means of the smaller superimposed timbers E E and the spikes F, one at each corner. In this manner I construct a substantial open frame or platform on the bottom of the pit, square or rectangular in shape, and firmly anchored by two of its sides projecting into and under two of the walls or sides of the pit, while the other two sides formed by the side timbers B B, are exposed to view. After this platform or anchorage has been constructed and embedded in the sides, of the pit in the manner described two blocks or pulleys (shown at G and H) are attached to the anchor-timbers B B about midway on the same, and a strong chain I is fastened at J to the upper end of the pipe K by means of the hooked block or pulley L. This chain is then carried down along one side of the pipe over the bottom pulley G on one side of the same, then up again obliquely along the pipe and over a pulley M, hooked to the upper end of the pipe diagonally opposite to the point of attachment of block L and the chain, and then down again over the second bottom pulley H and up over the upper block L to the drum of a power-windlass N, located on the ground above the pit.

If desired, the pipe-section to be drawn into the ground may be steadied and maintained in its vertical position by means of suitable guide-timbers or scaffolding, (not shown on the drawings,) or it can be steadied and guided simply by the hands of one of the workmen. After the chain has been attached and passed through the various blocks in the manner described, and fastened to the windlass the drum of the latter is revolved, thus winding up the chain and gradually drawing the lower end of the pipe into the soil at the bottom of the pit between the anchorage-timbers. After one pipe-section has been sunk in this manner the chain is unhooked, a fresh length or section of pipe is added, and the chain and pulleys affixed to the top of the latter, and this is repeated as each length of pipe is added

until the entire length of continuous pipe has been drawn down a sufficient depth to reach water.

5 Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

10 In a rig or apparatus for sinking well-pipe, the combination, with the anchor-frame composed of the timbers B B, the cross-timbers D D, and superimposed timbers E E, of the sheaves G H, connected with timbers B B, the hooks adapted to engage with the end of a

pipe carrying the sheaves L M, and the chain I, secured to the lower end of one of said hooks and passing around said sheaves G M H L, substantially as described.

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

CHARLES A. SELLON.

Witnesses:

GEORGE C. NEWCOMB,
W. C. ROBINSON.