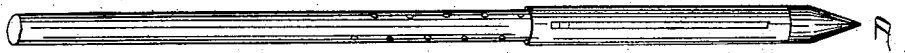


Winter & Brewer,

Well Tubing,

N^o 51,989.

Patented Jan. 9, 1866.



Witnesses;
Isaac Edgcomb
Franklin Goodyear

Inventor;
Wm. W. Winter
Stephen Brewer

UNITED STATES PATENT OFFICE.

WM. W. WINTER AND STEPHEN BREWER, OF CORTLANDVILLE, NEW YORK.

IMPROVEMENT IN BORING WELLS.

Specification forming part of Letters Patent No. **51,989**, dated January 9, 1866; antedated July 9, 1865.

To all whom it may concern:

Be it known that we, WILLIAM W. WINTER and STEPHEN BREWER, of Cortlandville, in the county of Cortland and State of New York, have invented a new and Improved Mode of Constructing Drilled or Bored Wells; and we do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of our invention consists in constructing the lower portion of the tube or pipe which is to be immersed in the water when the well is complete in such a manner that the apertures in said pipe through which the water is to pass into said pipe shall be closed while the pipe or tube is being sunk into the ground, and readily opened when it has reached its ultimate position in the earth.

The object of this invention or improvement is to prevent the dirt, sand, clay, &c., from entering the pipe through the said apertures (thus obstructing the pipe and apertures) while it is being sunk to its proper place in ground.

To enable others skilled in the art to make and use our invention we will proceed to describe its construction and operation.

We take a piece of iron or other metal pipe or tube, of any desired length and size for constructing a given well, having several apertures for the water to enter in the end designed to go at the bottom of the well. Said pipe is represented by A in the accompanying drawing. We then take another piece of larger-sized pipe or tube, twelve to sixteen inches long, having the lower or bottom end closed by welding together or with an iron plug. The size of this latter piece is such that the former will just fill it, and yet slide back and forth within it easily. We now cut two slots, about one-fourth inch wide, through and upon opposite sides of this shorter piece, continuing them nearly its whole length. This piece is represented by B in the accompanying drawing. We now slide the smaller pipe into the larger and connect them together by a key or pin, which passes through the slots

in the larger pipe and also through a hole made for that purpose in the smaller one near its lower end. When thus connected the smaller pipe can be slid back and forth in the larger, as are the sections of a telescope in contracting and extending it, and yet the key or pin will prevent them from coming entirely apart. The apertures are so arranged that when the tubes are thus connected and contracted to their shortest length the apertures are all covered or closed, and when expanded or drawn apart to their utmost limit the apertures in both pieces are all open or unclosed. This will readily appear by reference to the accompanying drawing, in which C represents the tubes when contracted and D when extended. The apertures for the water to enter in the large pipe are the slots in which the key moves when contracting and extending the tubes.

When the pipe is to be put into the ground for the construction of a well we close the apertures in the manner described, which will remain closed from mere friction between the pipe and soil while the pipe is being sunk. When the pipe has reached its final destination in the ground we then draw up the smaller pipe A a short distance, sufficient to fully extend the pipes, as before explained, and thus uncover or open all the apertures in the two pipes, through which the water enters freely, and may be drawn up by any common suction-pump at the top.

What we claim as our invention, and desire to secure by Letters Patent, is—

The construction of bored or drilled wells in such a manner that the lateral apertures in the lower portion of the pipe or tube shall be closed while the pipe or tube is being sunk into the ground, and readily unclosed or opened when the same has reached its final position in the earth, all substantially as herein shown and described.

WM. W. WINTER.
STEPHEN BREWER.

Witnesses:

FRANKLIN GOODYEAR,
ISAAC EDGCOMB.