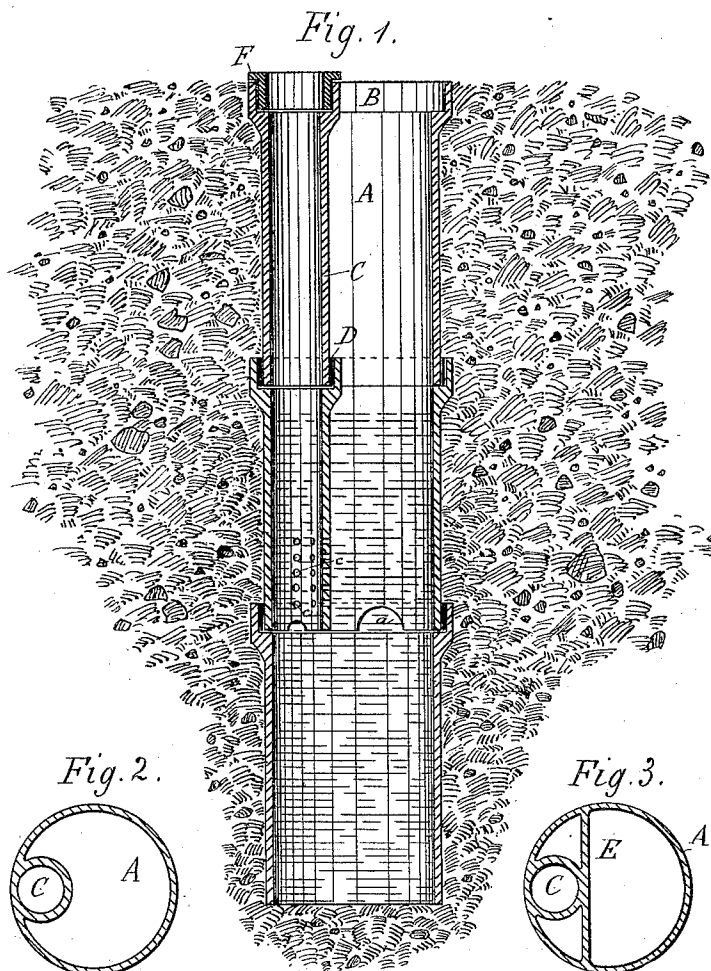


(No Model.)

J. MARSDEN.
WELL PUMP TUBING.

No. 285,909.

Patented Oct. 2, 1883.



WITNESSES:

Wm. A. Lowe
Edw. J. Morgan

INVENTOR

Joseph Marsden
BY *C. E. Chubb*
ATTORNEY

UNITED STATES PATENT OFFICE.

JOSEPH MARSDEN, OF FAR ROCKAWAY, NEW YORK.

WELL-PUMP TUBING.

SPECIFICATION forming part of Letters Patent No. 285,909, dated October 2, 1883.

Application filed April 30, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH MARSDEN, of Far Rockaway, in the county of Queens and State of New York, have invented certain new and useful Improvements in Well and Pump Tubing, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention relates especially to tubing or lining for wells and pump-tubing, and has for its object the production of a device cheap and simple to construct, easily placed in position, not liable to get out of order, and wherein the water, from the nature of the material employed, will be kept free from all influences which tend to injure or deteriorate the same, rendering it unwholesome for use.

To attain the desired results my invention consists, essentially, in a lining of tubing for wells, constructed of clay, glass, or any material of kindred nature, shaped in the manner usually employed for drain-tiles. These sections of tubing may be of any size required to fit the well within which they are to be employed, and of such a thickness as to withstand all outward pressure. Upon one end of each section is formed a flange and turned lip for the purpose of engaging with and holding the next tile above from lateral displacement. Formed with the well-lining tile is a small interior tubing, designed for the reception of the pump-rod or suction apparatus. This pump-tube is made in all respects in the same manner as the exterior tubing or well-lining, and is attached to the inner wall at one side.

In placing the tubing in a well the lowermost, or the next to the lowermost, section is cut away at the bottom, leaving openings through which the water may enter, and the pump-tube is perforated near the lower extremity within the large tube. When the lower section is located in place, the next section is seated thereon, and a packing-gasket of suitable material is placed between the pump-tube sections, permitting a slight expansion and contraction, and rendering said tubing air and water tight.

In the drawings, Figure 1 is a vertical sectional view of a well provided with my improved lining and pump-tube. Fig. 2 is a horizontal sectional view of one of the tiles;

and Fig. 3 is a like view, showing a strengthening-wall as formed therein.

Like letters of reference, wherever they occur, indicate corresponding parts in all the figures.

A is the outside tube or well-lining, formed of earthenware, glass, or equivalent material, the surface of which may be vitrified.

B is a lipped flange formed upon one extremity of each tile.

C is the pump-tube, made of the same material as tube A, formed with said tube upon the interior thereof, or affixed thereto by suitable means.

D is a packing-gasket, of rubber or other suitable material, placed between the sections of tube C. A lower section of the well-lining may be cut through or away at *a*, as shown, and the pump-tube perforated at *c* for the admission of water.

E is a strengthening-wall formed across the tube A, Fig. 3, holding the parts securely in place.

F is an iron ring at the top of the tube C, adapted and arranged to engage with the pump.

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

1. In a combined well-lining and pump-tube of the character herein specified, outer wall, A, having a lipped flange, B, and the pump-tubing affixed to the interior of A, and provided with a like lipped flange, substantially as and for the uses and purposes shown and described.

2. In a combined well-lining and pump-tube of the character herein specified, a section cut away at *a*, and having perforations *c*, substantially as shown and described.

3. Outer tubing or well-lining, A, having lipped flange B, inner or pump tube, C, affixed to or formed with the well-lining A, and having a like flange thereon, and packing-gasket D, the whole combined and arranged to operate substantially as shown and described.

In testimony that I claim the foregoing I have hereunto set my hand in the presence of two witnesses.

JOSEPH MARSDEN.

Witnesses:

EDWD. I. HORGAN,
A. G. CHICHESTER.