

No. 882,359.

PATENTED MAR. 17, 1908.

M. B. VAN NESS.
WELL TUBE AND STRAINER.
APPLICATION FILED FEB. 7, 1906.

Fig. 1.

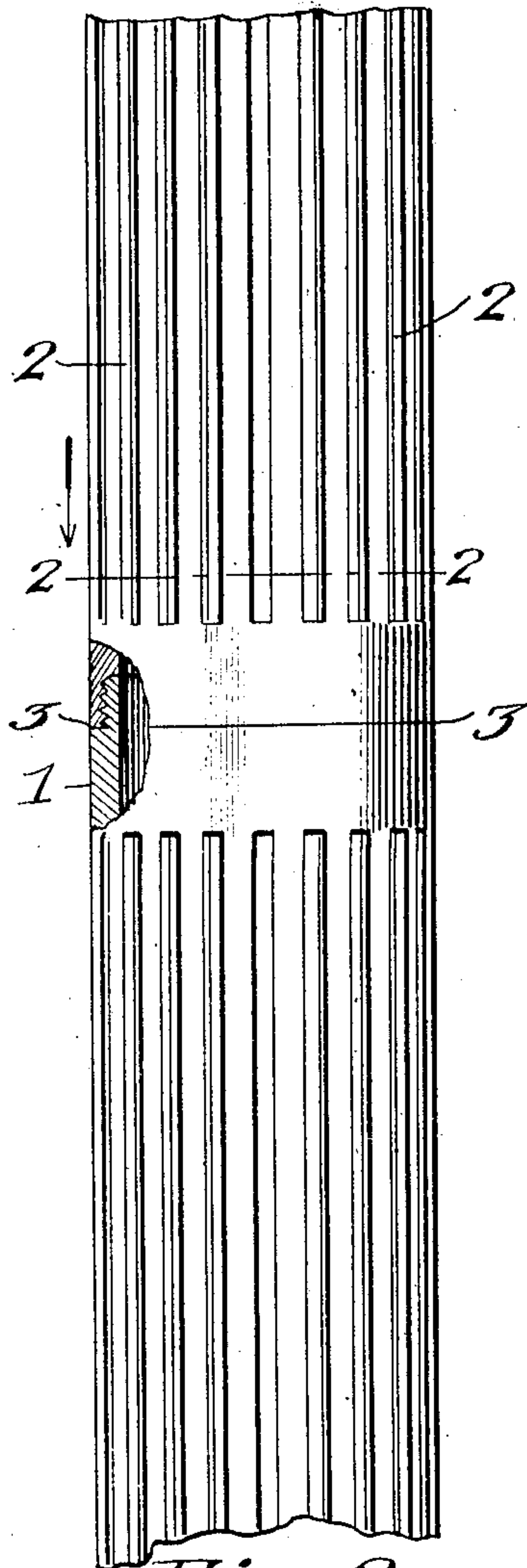
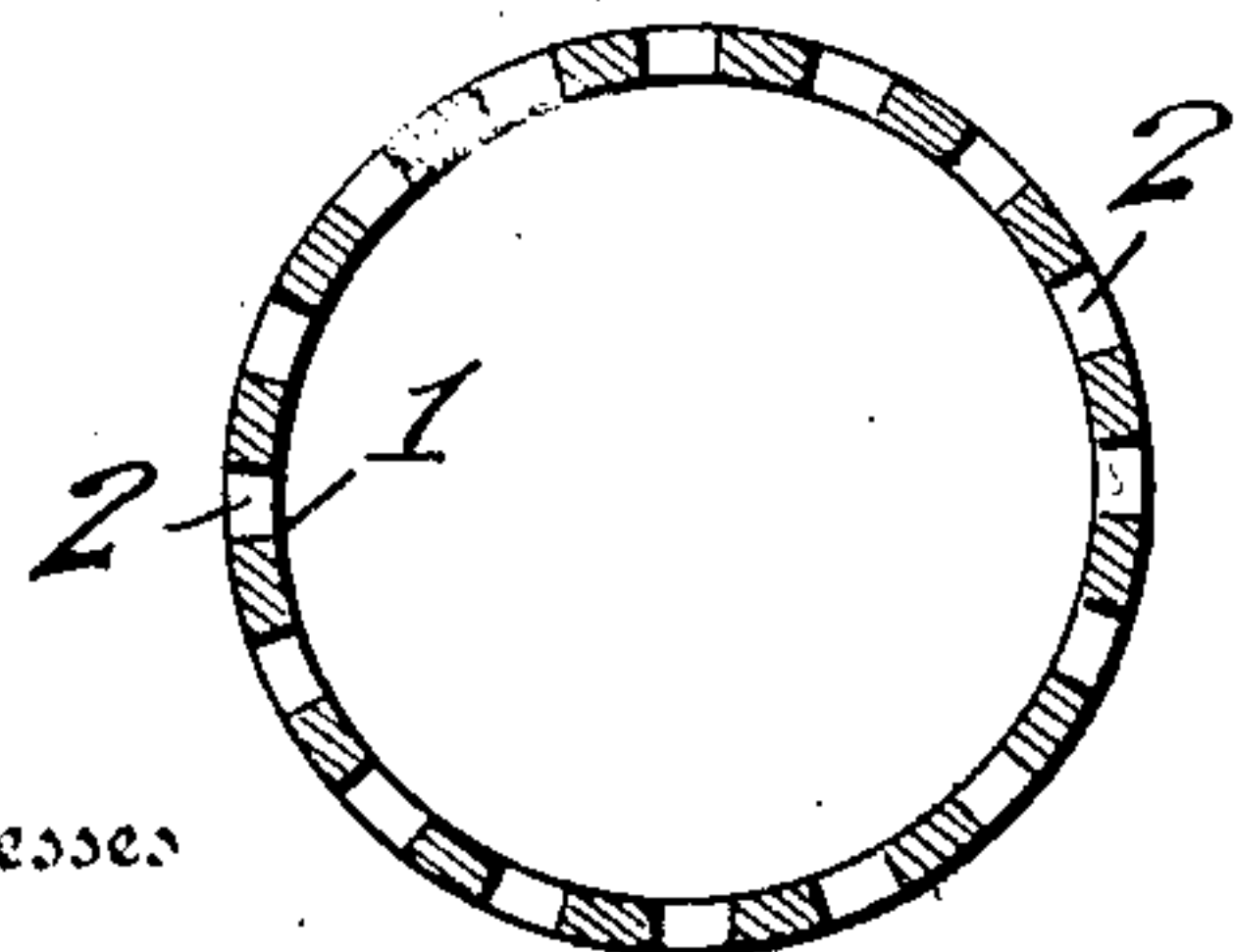


Fig. 2.



Witnesses

Frank B. Hoffman,
R. M. Smith.

Fig. 3.

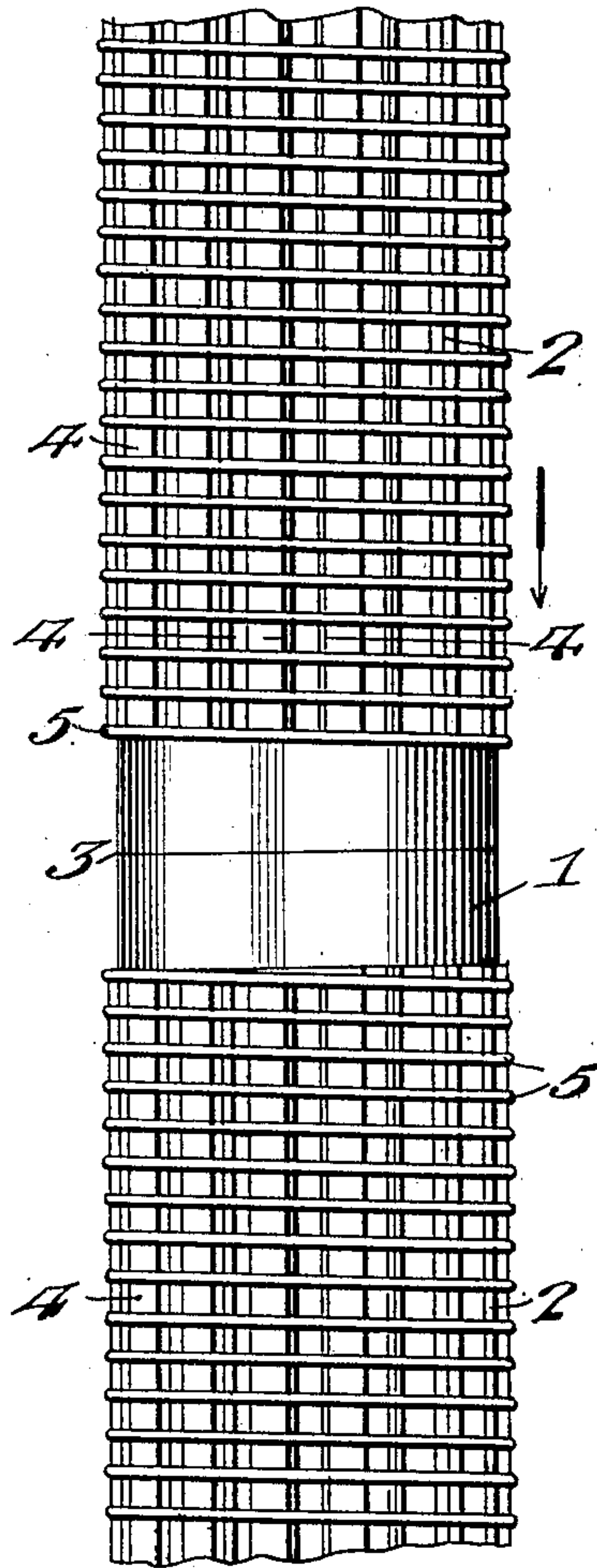
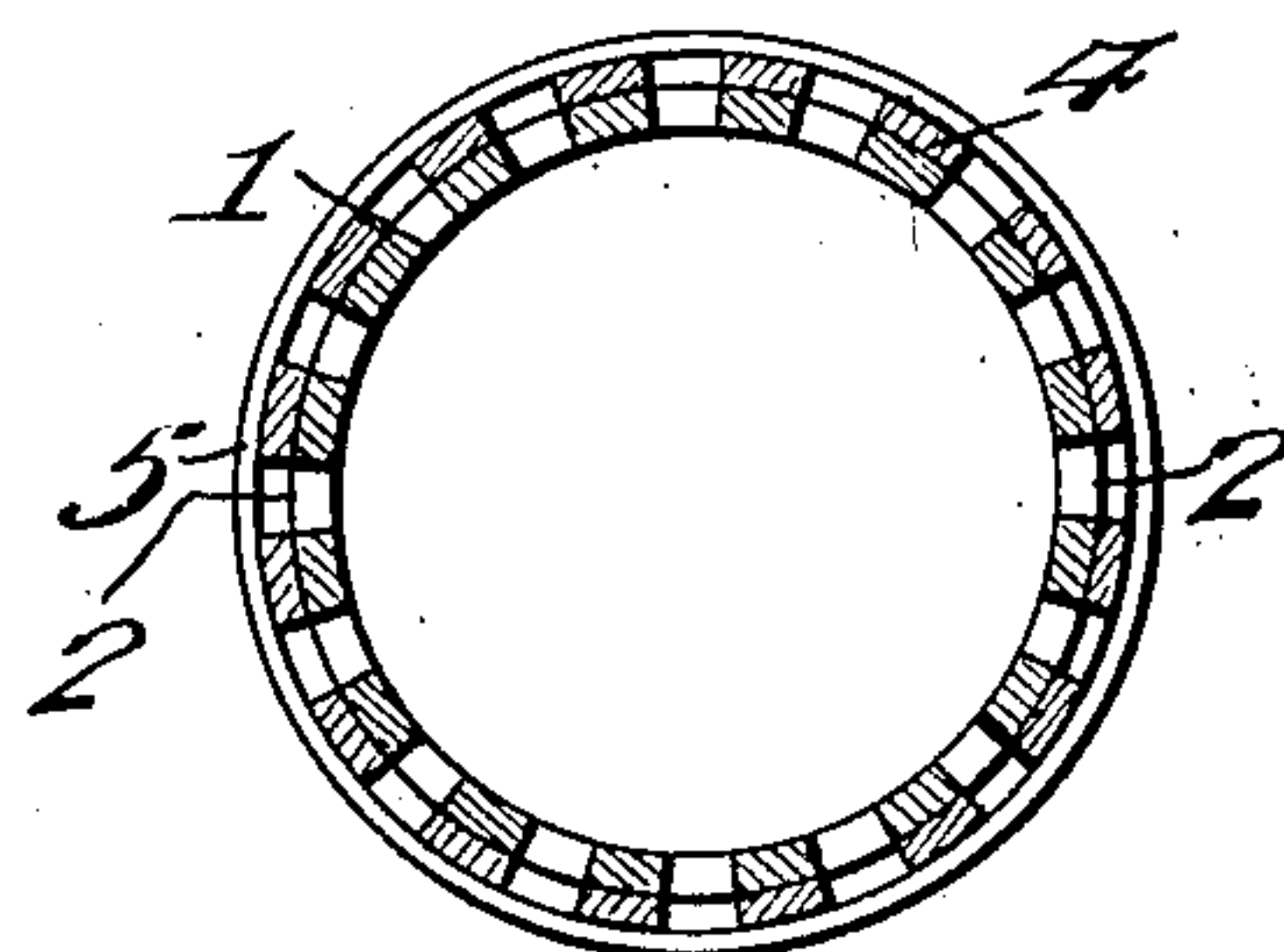


Fig. 4.



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WELL-TUBE AND STRAINER.

No. 882,359.

Specification of Letters Patent.

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Application filed February 7, 1906. Serial No. 299,997.

To all whom it may concern:

Be it known that I, MARVIN B. VAN NESS, a citizen of the United States, residing at Welsh, in the parish of Calcasieu and State of Louisiana, have invented new and useful Improvements in Well-Tubes and Strainers, of which the following is a specification.

This invention relates to well tubes and strainers, the object of the invention being to provide a tube for the purpose described, which is particularly adapted to sandy soil and which may be used as a permanent lining and strainer for the well after the same has been bored. The tube is also intended for use in old wells.

The deep well and strainer system for irrigation is a very serious proposition in the lower section of the United States and in other countries, and particularly in rice growing districts where, in order to successfully raise crops, the land must be covered with water and kept in a thoroughly moistened condition for periods of from four to six months of time. These wells are from two to five hundred feet in depth and frequently contain from fifty to one hundred feet of strainer, not less than 8 to 12 inches in diameter.

By reason of the construction herein-after described, the pipe sections of this invention may be made of any suitable length and connected or coupled together by joints of any kind, such as screw joints and inserted in the well either after the same has been drilled or during the drilling operation, the well tube of this invention being specially adapted to wells formed by the standard churn drilling rigs or by the system of rotary drilling and rotation of the pipe or tube. It will be understood that under such a system as the one referred to, the wire covering, as ordinarily employed, would be destroyed before the well was completed or fairly under way. The well tube hereinafter described is adapted to withstand either longitudinal or rotary or torsional strain without liability of injury and may be attached to the line of pipe or tubing as the latter is inserted in the well.

A further object of the invention is to produce a simple, cheap and practical well tube which meets the requirements of the present day, combining superior strength and greater utility as compared with similar devices now in use. The strainer openings are formed in such manner as to enable the tube as a whole

to effectively resist the action of the sand and water and render such openings self-clearing or cleaning, thus insuring the continuous operation of the well.

With the above and other objects in view, the invention consists in the novel construction, combination and arrangement, hereinafter fully described, illustrated and claimed.

In the accompanying drawings, Figure 1 is a side elevation of portions of adjoining sections of well tubes before they have had the slats or strips secured thereto. Fig. 2 is a cross-sectional view on the line 2—2 of Fig. 1. Fig. 3 is an elevation similar to Fig. 1, showing the manner of applying the slats or strips to the tube sections, and Fig. 4 is a cross-section on the line 4—4 of Fig. 3.

In carrying out the present invention, I employ a pipe or tube 1 of any suitable length and provide the same with slots or kerfs 2, extending lengthwise thereof, said kerf terminating sufficiently remote from the extremities of the tube or pipe to retain the full strength of the tube or pipe and admit of the tube sections being connected securely together by a screw joint at the point 3. The slots or strainer openings 2 are preferably formed in a kerfing machine which operates from the outside of the pipe or tube, the saws of such machine penetrating the pipe or tube from the outside. These slots or kerfs may be formed of any desired width, such width varying in accordance with the nature of the soil where the well is to be drilled and lined.

To complete the tube or lining I employ a series of slats or strips 4, of a width conforming substantially to the width of the metal between the slots 2, and of a length substantially equal to the length of the said slots. These slats or strips are placed upon the tube 1 to cover the metal between the slots, and a wire binder 5 is then wrapped spirally from end to end of the slats or strips, the distance between the layers or coils of wire being practically uniform, as shown in Fig. 3, thus forming a series of uniform rectangular interstices extending both longitudinally of the tube and transversely around the same. The slats or strips 4 add strength and stability to the tube, and since the expensive portions of the well tube are the inner slotted sections, these sections are materially reinforced and enlarged by the slats or strips and the wire binding without much additional expense. A tube or lining thus armed with the spiral wire coils is much more easily turned or ro-

tated in place and removed when required, for the reason that there are no sharp edges to scrape the soil during rotation as would be the case where slotted tubes were employed
5 without the slats and wire armor. Furthermore greater strength and greater resistance against corrosion are attained owing to the increased thickness and area presented.

I claim,

10 The herein described well tube lining and strainer consisting of an inner tube provided with a series of longitudinal slots extending nearly to the ends of said tube, a series of

strips applied to said tube to cover the metal between the slots and a spirally wound wire 15 binding wrapped around the strips, the coils of said binding wire being of equal distances apart to provide rectangular strainer interstices.

In testimony whereof, I affix my signature 20 in presence of two witnesses.

MARVIN B. VAN NESS.

Witnesses:

C. E. CARR,
A. G. DAVIS.