J. A. BECK.

IRRIGATION COIL WHEEL.

APPLICATION FILED NOV. 17, 1913.

1,108,675.

Patented Aug. 25, 1914.

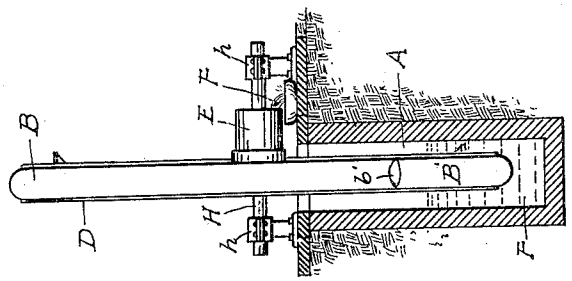


FIG. 2.

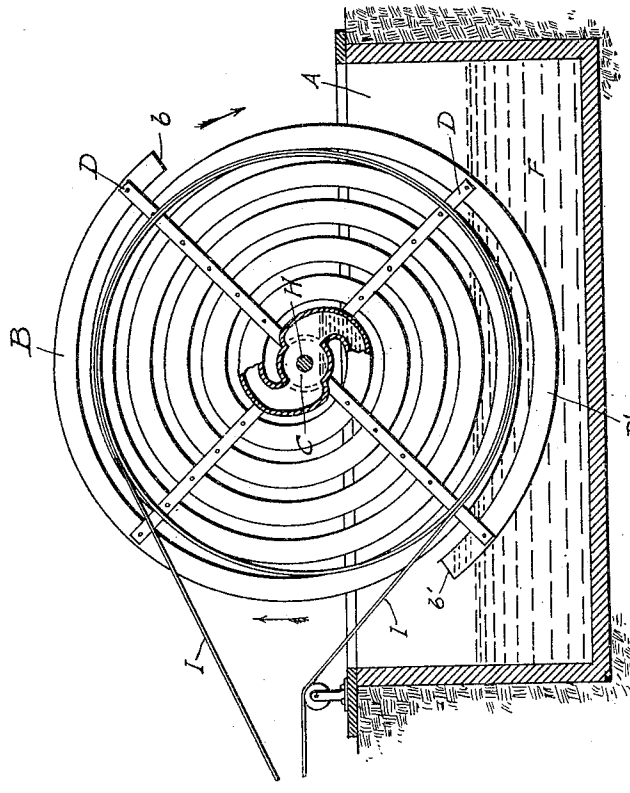


FIG. 1.

WITNESSES:

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UNITED STATES PATENT OFFICE.

JAMES A. BECK, OF STEWARTSVILLE, MISSOURI, ASSIGNOR OF ONE-THIRD TO DAVID FLINN, OF STEWARTSVILLE, MISSOURI.

IRRIGATION COIL-WHEEL.

1,108,675. Specification of Letters Patent. **Patented Aug. 25, 1914.**

Application filed November 17, 1913. Serial No. 801,500.

To all whom it may concern:

Be it known that I, JAMES A. BECK, a citizen of the United States of America, residing at Stewartsville, in the county of Dekalb and State of Missouri, have invented certain new and useful Improvements in Irrigation Coil-Wheels, of which the following is a specification.

It is a well known fact that there are in the United States large districts of lands that require irrigation in order to render them arable. It is also a well known fact that under a large part of these lands, at varying depths, there are springs and under-flows of water from which, by the use of suitable machinery, an abundance of water may be secured for irrigation and other purposes. But the methods now in use, owing to the back pull of water and consequent power required and for other reasons render it both difficult and expensive to obtain water in sufficient quantity and continuously. To overcome these objections I have invented a coil wheel pump adapted to take up water from below the level of the ground from such under-flows and springs or in artificial basins into which water has been guided and stored; the wheel may also be installed in rivers, creeks or any place where water can be obtained for irrigation purposes.

I accomplish my object by the mechanism illustrated in the accompanying drawings, in which,

Figure 1 is a sectional elevation of my device showing the coiled pipe wheel in operative position with a band or chain on the outer rim of the coil, said band having any suitable motor connection, and Fig. 2 is an edge or front view of the coil wheel in revoluble position showing axle supports and water being discharged as the wheel is revolved.

Similar letters refer to corresponding parts in the drawings and throughout the following description.

A represents a reservoir or excavation of any required depth constructed below the level of the earth.

B and B′ show two coils starting from opposite edges of a hollow shaft C forming a common center, the intake ends *b* and *b′* of said coils terminating on opposite edges of the circumference of said coil wheel.

D represents a frame to hold said coils in rigid position. A discharge pipe E projects from one side of said common center, as shown in Fig. 2. Through said pipe E the water F is discharged for irrigation, the same being distributed, as it flows out, by any suitable means.

H is an axle having suitable supports *h h* located above the level of the ground where a reservoir or basin is excavated for the installation of a coil wheel. The coil wheel is provided with a band or chain I, as shown in Fig. 1, which may be connected with any suitable motive power.

The motive power having begun to revolve the wheel, one coil will follow the other in taking water and as soon as the coils are partly filled the water continuously entering the intakes will force that already at the common center out through discharge pipe E until the supply from the spring, under-flow or reservoir is exhausted or the motor power ceases to operate. If desired, discharge pipe E may be extended on opposite sides of the coil wheel, thus distributing water simultaneously in opposite directions, and, without altering the scope of the invention two or more coil wheels may be operated side by side on a single extended axle.

What I claim and desire to secure by Letters Patent is,—

The combination with suitable motor power of a solid axle suitably supported in proximity to the level of the ground, a hollow shaft forming a common center around said axle serving as an overflow pipe, two or more coiled tubings forming a wheel their outer ends adapted to take up water from a reservoir at points equidistant from each other on the periphery of said wheel and to empty the water into said hollow shaft, a discharge pipe from an end of said hollow shaft and a plurality of strips across the coiled tubings forming a frame on both sides of the wheel to strengthen the same.

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

JAMES A. BECK.

Witnesses:
L. F. HENRY,
DAVID FLINN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."