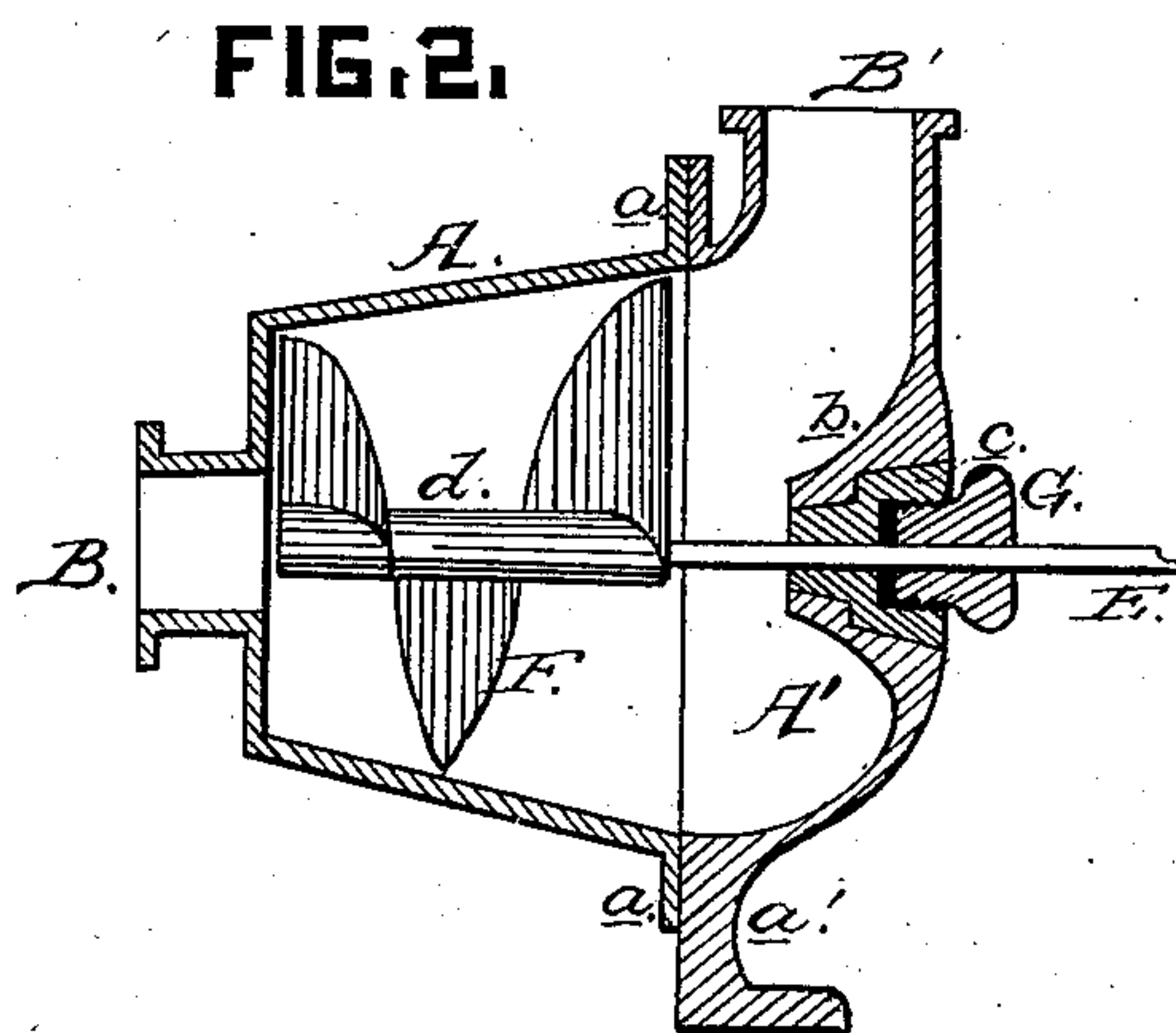
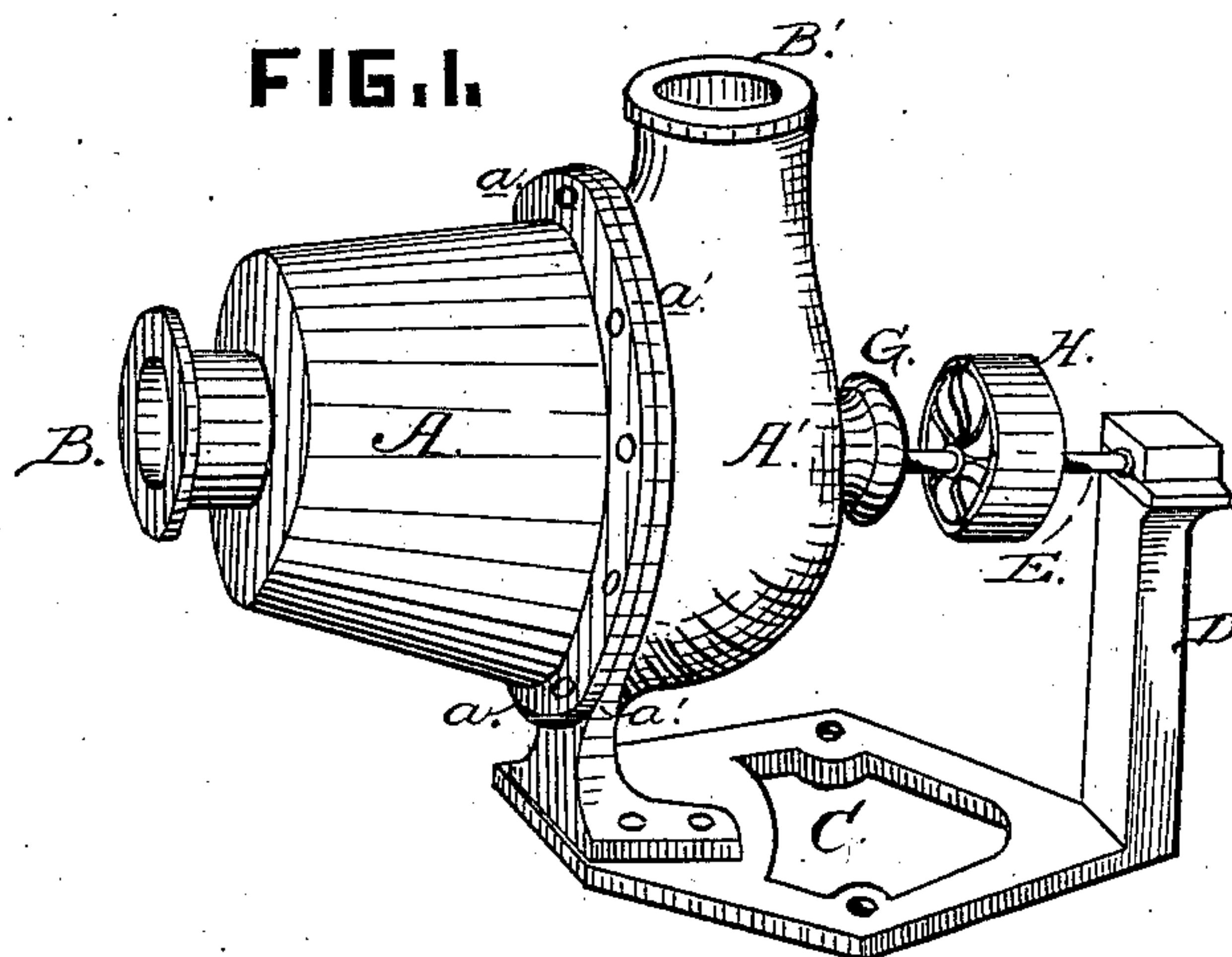


(No Model.)

D. ROSS.  
ROTARY PUMP.

No. 256,505.

Patented Apr. 18, 1882.



WITNESSES

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# UNITED STATES PATENT OFFICE.

DAVID ROSS, OF HOT SPRINGS, ARKANSAS.

## ROTARY PUMP.

SPECIFICATION forming part of Letters Patent No. 256,505, dated April 18, 1882.

Application filed December 9, 1881. (No model.)

*To all whom it may concern:*

Be it known that I, DAVID ROSS, a citizen of the United States, residing at Hot Springs, in the county of Garland and State of Arkansas, have invented certain new and useful Improvements in Rotary Pumps; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to that class of rotary pumps in which the casing is divided into two sections, provided respectively with supply and discharge openings, and with a single piston; and my improvements consist of a rotary pump having the casing divided into two sections, one of which is of a tapering shape, adapted to receive a spiral blade of a corresponding shape, and the other of an enlarged diameter, said sections being provided with supply and discharge openings, all as will be hereinafter more particularly described, and pointed out in the claim.

In the drawings, Figure 1 represents a perspective view of my complete invention, and Fig. 2 a vertical longitudinal section thereof. Similar letters of reference indicate like parts in both figures.

The casing of my improved rotary pump is formed of two parts or sections, A A', the first part or section, A, of which, being provided with the supply-opening B, is of a tapering shape, terminating in a circular flange, *a*, which is adapted to be bolted or riveted to the flange *a'* of the other section, A', which is of a larger diameter or capacity, and provided with the discharge-opening B', as fully shown in the drawings. The casing thus constructed is securely bolted or otherwise attached to the iron frame or stand C, which is provided with a standard or upright, D, at the rear end, as shown.

E represents the horizontal shaft, passing into the hollow casing and attached at its in-

ner end to the hub *d* of the spiral blade F, and journaled at its opposite end in the upper part of the standard D and in the back of the casing A', as shown, a projection, *b*, being formed upon the inner surface of the said casing during the operation of casting to receive the removable boxing G, through which the said shaft revolves.

H represents the pulley, attached to the shaft E between the standard D and the back of the casing A', whereby power is applied to the said shaft and spiral blade F.

*c* represents the packing-box, which is designed to be filled with tow or hemp to exclude the air and prevent the water from escaping along the shaft.

The spiral blade F, projecting from the hub *d*, is of a broad elongated shape, snugly fitting the contour of the tapering section of the casing and terminating with a straight vertical edge at both ends.

It will be observed that by means of the tapering portion or section and the revolving screw of a corresponding shape the water is discharged freely at the discharge portion in a continuous stream, and the enlarged portion or section prevents grit, stone, or other obstructions from clogging or breaking the spiral blade.

Having thus described my invention, what I claim as new and useful is—

In a rotary pump, the casing formed of the two sections A A', the front portion, A, of which is of a tapering shape, adapted to receive the spiral blade F of a corresponding shape, and the rear portion, A', of an enlarged diameter, said sections A A' being provided with the supply and discharge openings B B', respectively, substantially as and for the purpose specified.

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

DAVID ROSS.

Witnesses:

I. B. ALBAUGH,  
T. I. FARMER.