

(No Model.)

J. W. SEIVERT & J. W. YOUNG.
CURRENT WATER WHEEL.

No. 532,595.

Patented Jan. 15, 1895.

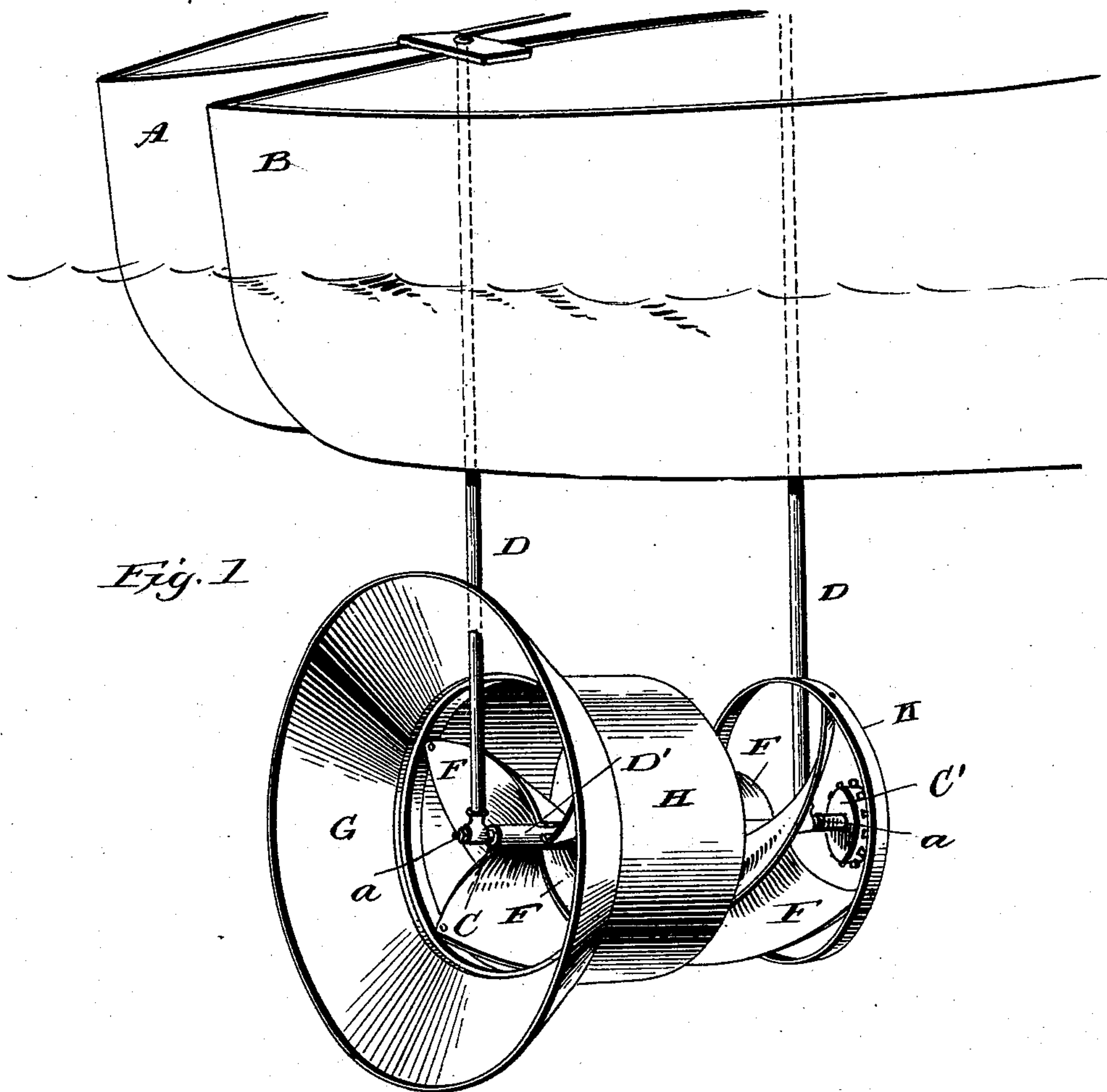


Fig. 1

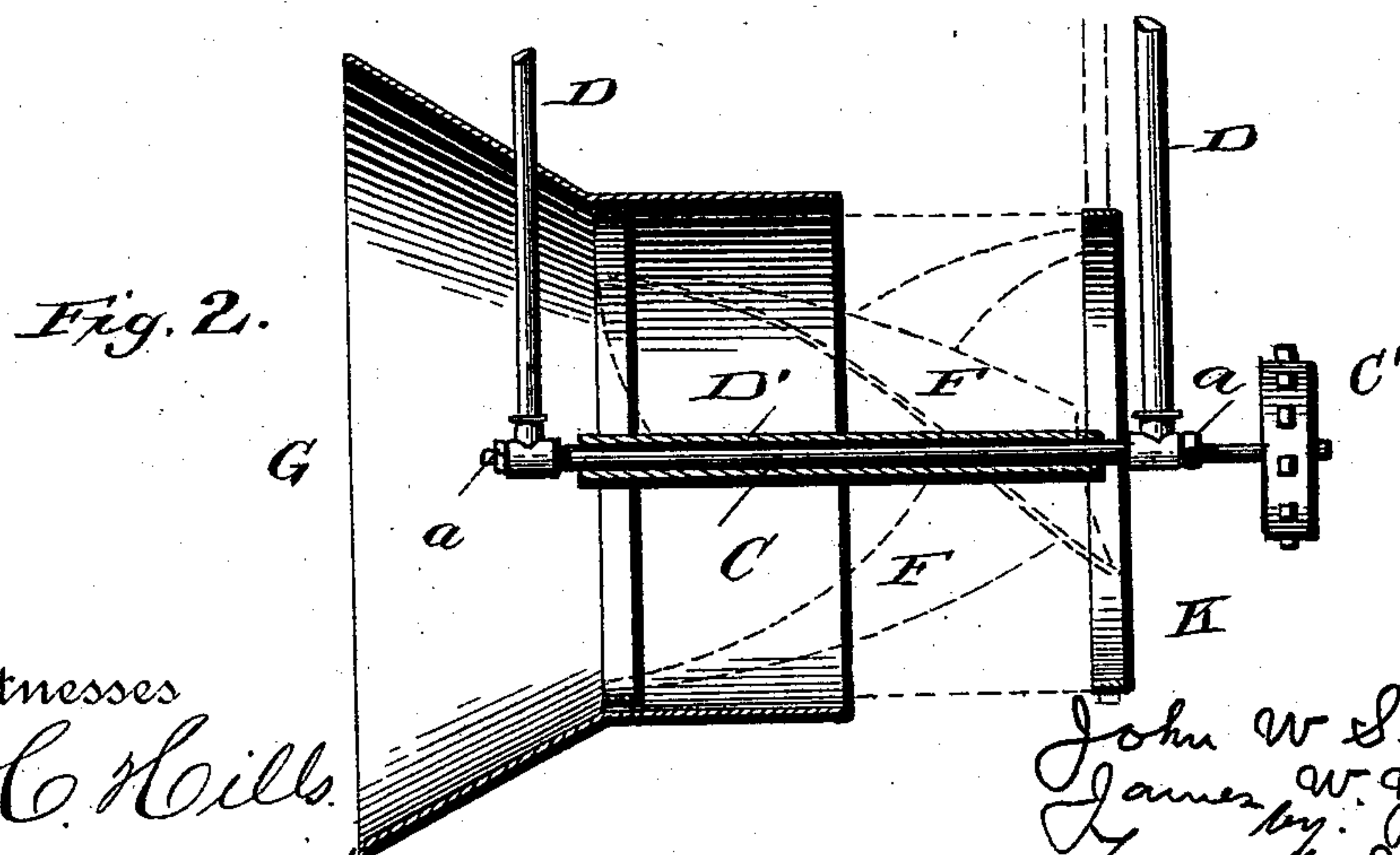


Fig. 2.

Witnesses
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UNITED STATES PATENT OFFICE.

JOHN W. SEIVERT AND JAMES WELCOME YOUNG, OF MEDICAL LAKE,
WASHINGTON.

CURRENT WATER-WHEEL.

SPECIFICATION forming part of Letters Patent No. 532,595, dated January 15, 1895.

Application filed December 27, 1893. Serial No. 494,863. (No model.)

To all whom it may concern:

Be it known that we, JOHN W. SEIVERT and JAMES WELCOME YOUNG, citizens of the United States, residing at Medical Lake, in the county of Spokane and State of Washington, have invented certain new and useful Improvements in Current Water-Wheels; and we 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 of reference marked thereon, which form a part of this specification.

This invention relates to that class of current wheels or motors in which there is provided some means, as a funnel-shaped device, for conducting the water to the wheel.

It has for its objects among others to provide an improved wheel by which we can obtain greater power with less expenditure of force and at less expense than heretofore, and by suspending the same from boats we are enabled to navigate the same from place to place when desired. Further by having the wheel suspended or supported from and between boats instead of upon a frame or other support or structure fast upon the shore the wheel will always remain the same distance below the surface of the water, the boats rising and falling with the water as will be readily understood. We provide the wheel with a funnel-shaped device within which a portion, about one half, of the wheel is incased, the remaining portion, that down stream, being out of the casing so that the water may more easily escape after it has served its purpose in acting upon the wheel.

In the drawings Figure 1 is a view showing the wheel suspended from the boats in position for operation. Fig. 2 is a vertical longitudinal section through the wheel and its funnel the blades of the wheel being shown in dotted lines.

Like letters of reference indicate like parts in both of the views.

Referring now to the details of the drawings by letter, A designates a boat and B another, both of which may be of any suitable character and provided with means for anchoring them in the desired position. Supported from

and between these boats in any suitable manner is the horizontal shaft C which is journaled in the lower ends of the supports D and upon this shaft are the adjusting nuts *a* as shown.

D' is a hollow shaft keyed upon the shaft C and upon which are the spiral wings or blades F which are of peculiar shape and form, being such as to best operate to produce the best results. These spirals or wings or blades can be made any desired size and pitch to give the required power. We may make some provisions for adjusting them upon their shaft.

The wheel is arranged in the water with its funnel-end up or toward the current and this funnel G is secured to a casing H which may be a cylinder or skeleton casing as shown, the funnel being of any desired material and proportions. The spirals extend the full length of the shaft and the shaft C extends beyond the same so as to be connected with the supports D, and the funnel extends but about one half the length of the blades as shown so while the front end is incased within the funnel the flaring portion of which serves to conduct the water to the wheel, the rear end, as it were, of the wheel is out of the casing so that as the water acts upon the spirals and after it has exerted its force thereupon it can freely escape and thus get out of the way so as not to be a dead weight thereon.

K is a band connecting the rear ends of the blades, it having the same diameter as the casing or cylinder H.

The funnel is designed to remain stationary while the flukes or blades revolve.

C' is a sprocket wheel keyed to the end of the shaft C.

The power may be transmitted in any suitable manner. It is designed to arrange the parts so as to drive or operate pumps for conveying water from a stream wherever the wheel is located to uplands for irrigating purposes.

While we have described the wheel as used in connection with a funnel to concentrate the current upon the wheel, still we do not desire to limit ourselves to the use of the funnel in this connection, as it is evident that the wheel may be used without the funnel, if preferred.

Parts may be used without the whole. Some

of the parts may be used in connection with other parts differently constructed and arranged from what they are here shown. The casing may extend a greater or less distance 5 than what it is here shown, but we believe that about half way will be found preferable.

By connecting and supporting the wheel from boats the same can be quickly and easily moved from place to place when desired.

10 We reserve the right to vary the construction and arrangement of parts hereinbefore described as may be found necessary to produce the desired results in the best manner.

While we have described the apparatus as 15 adapted for use for irrigating purposes, it is at once evident that it is equally well adapted for other purposes.

We claim—

In a rotary hydraulic motor, the combination of the rods D, D, supported from a float 20 and carrying at their lower extremities journal boxes in which turn a shaft C to which is keyed a cylinder D' having the wings F, of the cylinder H with funnel portion G, the said cylindrical portion extending over only a por- 25 tion of the said blades for the purpose set forth, and the band K connecting the rear tips of the blades F, all substantially as shown and described.

In testimony whereof we affix our signatures in presence of two witnesses. 30

JOHN W. SEIVERT.

JAMES WELCOME YOUNG.

Witnesses:

D. G. WINDHUSEN,

A. JACKSON.