

W. Heuncke,

Water Wheel,

N^o 85,094.

Patented Dec. 22, 1868.

Fig: 1.

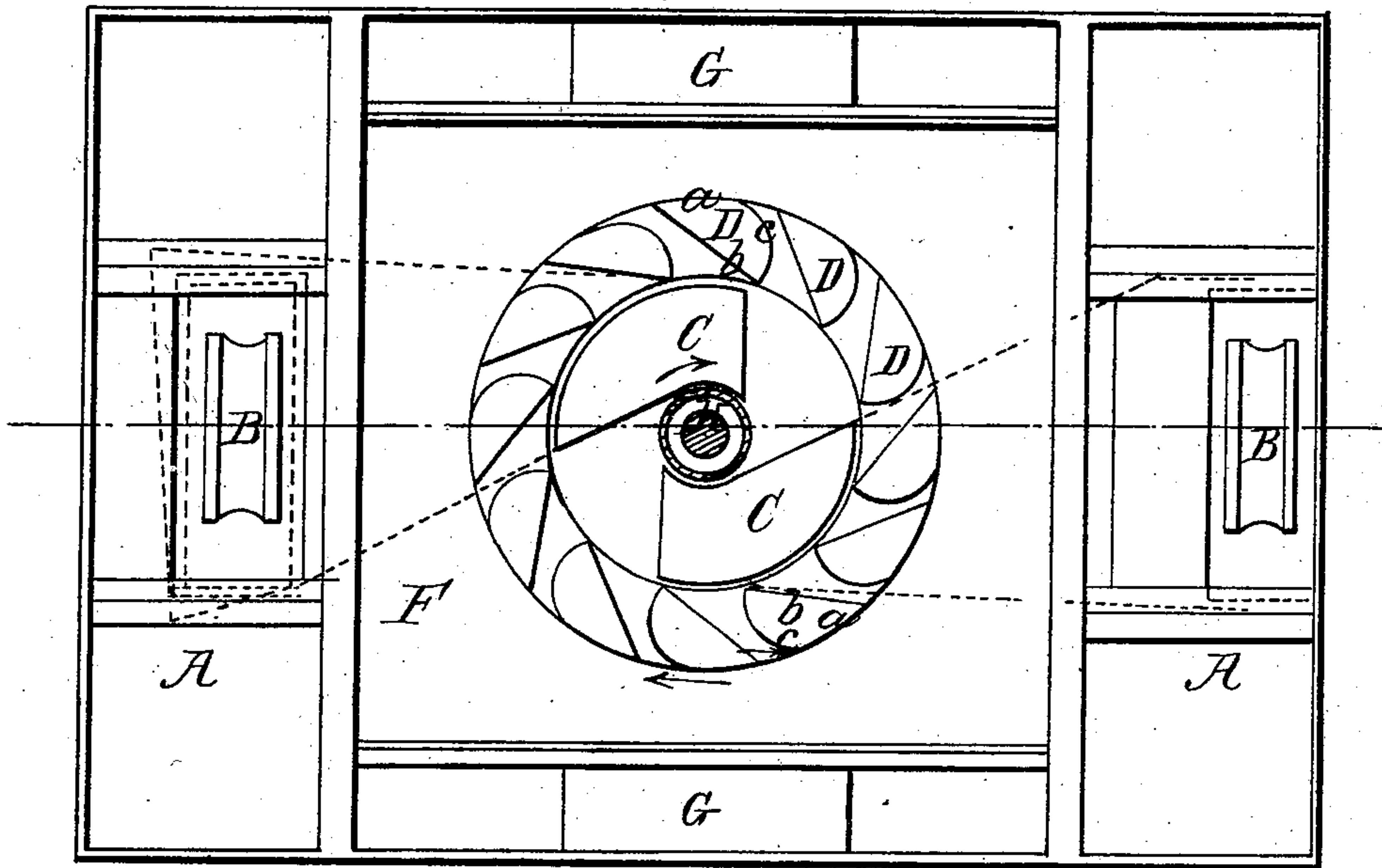
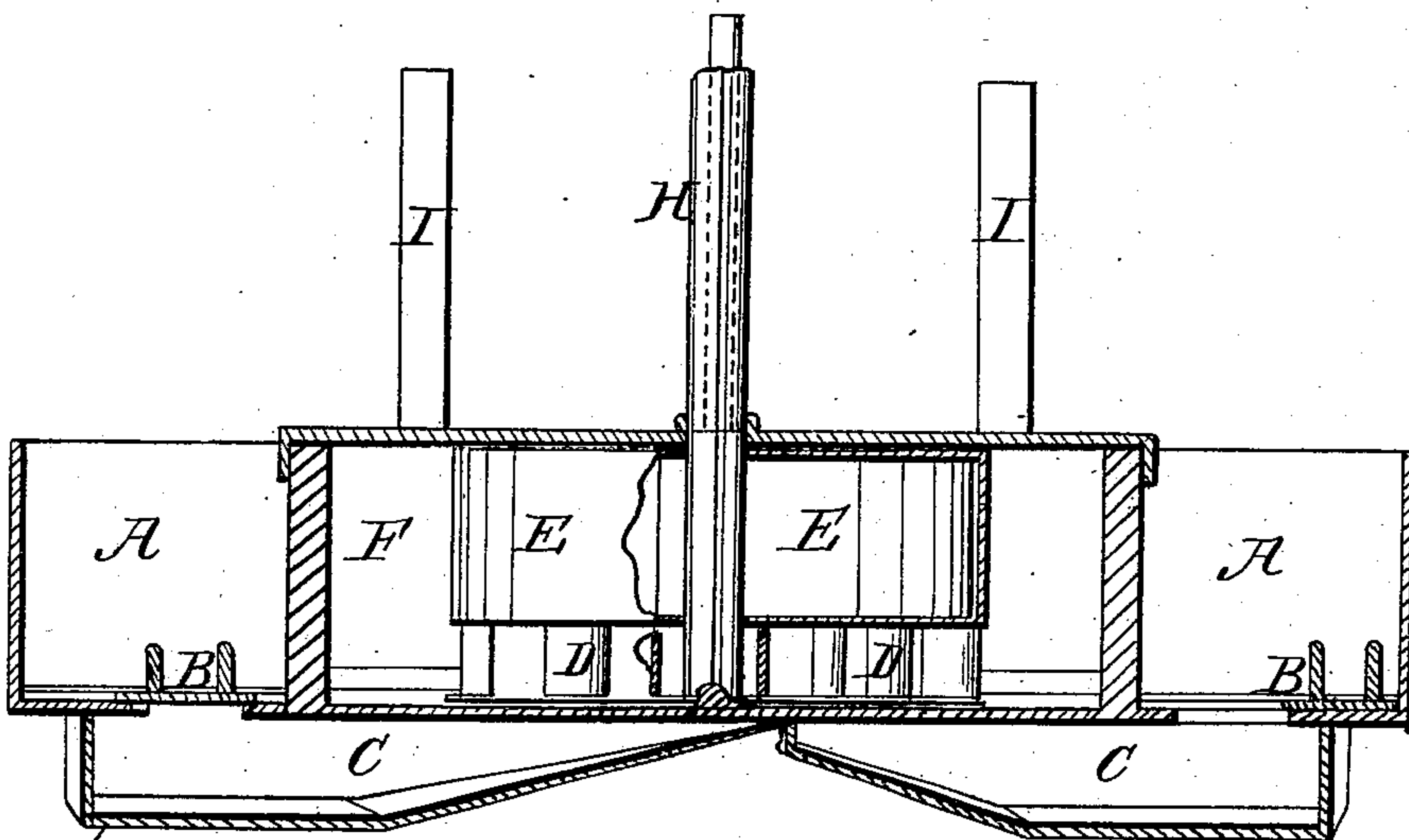


Fig: 2.



Witnesses;
J. Dennis
Daniel Breed

Inventor
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By his Atty. J. Dennis & Co.



WILLIAM HEUPCKE, OF BLACK CREEK, PENNSYLVANIA.

Letters Patent No. 85,094, dated December 22, 1868.

IMPROVED WATER-WHEEL.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, WILLIAM HEUPCKE, of Black Creek, Luzerne county, State of Pennsylvania, have invented an Improved Water-Wheel; and I do hereby declare the following description and accompanying drawings are sufficient to enable any person skilled in the art or science to which it most nearly appertains, to make and use my said invention or improvements without further invention or experiment.

The nature of my invention and improvements consists in making the top of the wheel an air-chamber, to buoy up a part of the weight of the wheel; also, in making the floats hollow or box-form.

In the following description of my invention, I shall refer to the accompanying drawings, forming part of this specification—

Figure 1 being a plan of my wheel, the cover of the case and top of the wheel being removed, and

Figure 2, a vertical section at the line *z z* on fig. 1.

A A are the forebays, from which water is admitted to the wheel by the gates B B, so as to issue into the wheel from the chutes C C.

The floats or buckets D D are made with three sides enclosing a space, or in box-form, to give proper direction to the different sides, and for greater strength.

The side, *a*, corresponds with the circumference of the wheel.

The side, *b*, against which the water from the chute is to strike, to drive the wheel, is made flat, or plane, or nearly so, and its direction is about at right angles to the direction in which the water issuing from the chute C will impinge upon it, so that the force of the water may produce the greatest possible effect in propelling the wheel.

The side, *c*, of the floats is curved backward relatively to the motion of the wheel, so that the water escaping from the wheel may leave it in a backward direction relatively to the motion of the wheel, and nearly in the direction of a tangent to the circumference at that point.

The top of the wheel is extended above the buckets D D, and is made an air-tight chamber, E, in order that, when the water in the surrounding-case F rises above the buckets, the wheel will be buoyed up by the air-chamber E, and the weight on the step of the shaft lightened, so as to lessen the friction and wear on the step.

The water in the case F may at any time be raised, for this purpose, by partially closing, if necessary, the discharge-ports G G.

It is plain that the hollow or box-form buckets D D will have the same effect of lightening the wheel.

H is the shaft, supporting the wheel, and upon which it revolves, and

I I are ventilating-pipes for the case F.

I claim the air-chamber E above the wheel, so that, when the water is higher around the wheel than the floats, it will tend to lift the wheel, and lighten the pressure on the step of the shaft.

I claim the hollow or box-form buckets D, having two curved sides, and one plane, or nearly so, substantially in the manner and for the purposes described.

WILLIAM HEUPCKE.

Witnesses:

J. DENNIS, Jr.,
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