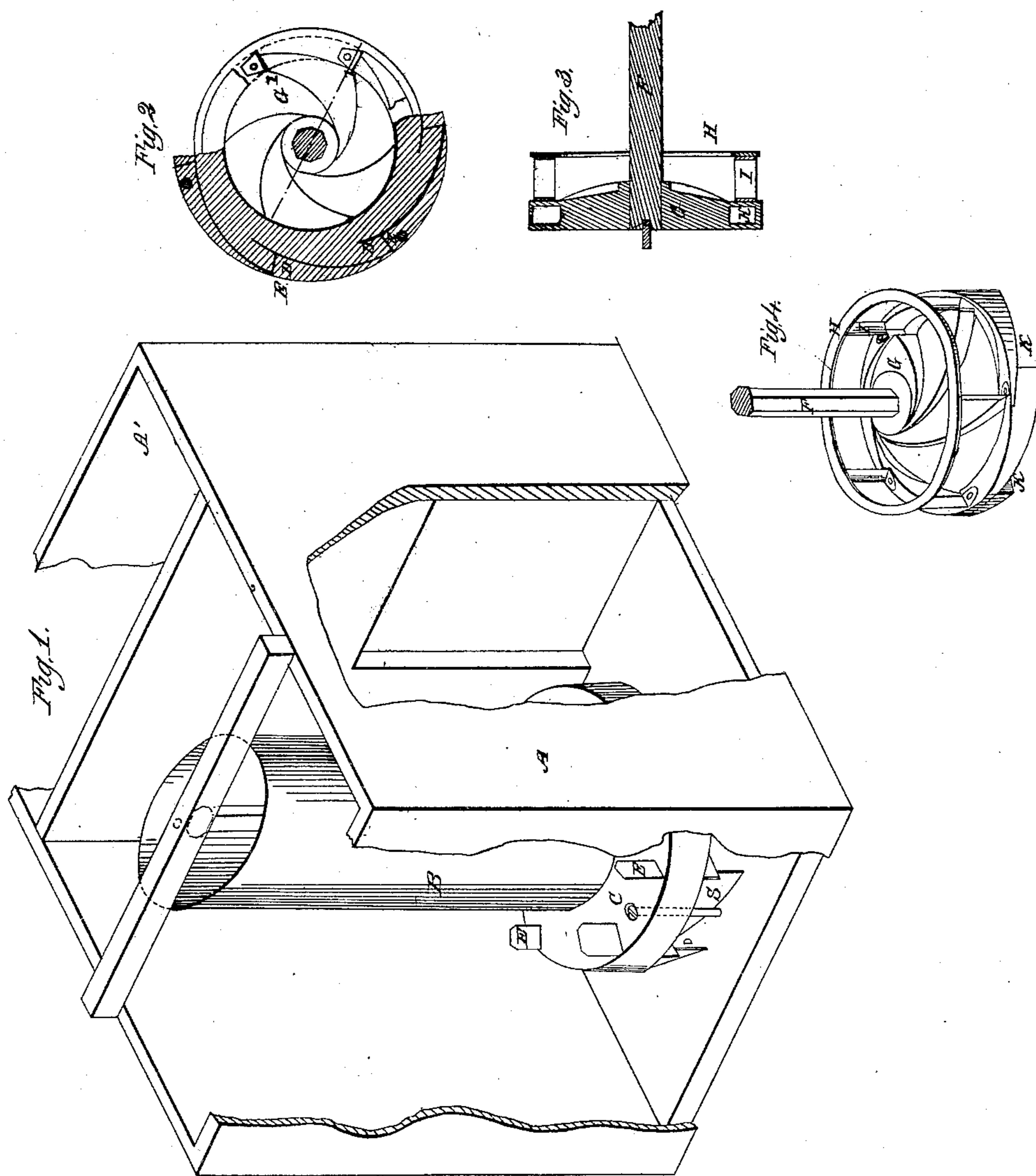


M. CARPENTER.
WATER WHEEL.

No. 62,605.

Patented Mar. 5, 1867.



Witnesses.

Alfredson.
Lawrence Murphy

Inventor
Michael Carpenter
by D. P. M. M. W. A. G. L.
his attys.

United States Patent Office.

MICHAEL CARPENTER, OF MOSCOW, IOWA.

Letters Patent No. 62,605, dated March 5, 1867; antedated February 25, 1867.

IMPROVEMENT IN WATER-WHEELS.

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, MICHAEL CARPENTER, of Moscow, in the county of Muscatine, and State of Iowa, have invented a new and useful Improvement in Water-Wheels; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, made part of this specification, in which—

Figure 1 is a perspective view.

Figure 2 is a top view.

Figure 3 is a section on the line x, fig. 2.

Figure 4 is a perspective view of the wheel detached.

The same letters refer to identical parts.

A represents the fore-bay, which I construct in two compartments A and A', the water entering from A' into A through an opening closed by an ordinary sliding gate. B is a cylindrical tube surrounding the shaft, and open below, upon the upper face of the wheel. This fits into the cap C, underneath which the water is introduced upon the wheel through several guides, D, which are so formed as to direct the water perpendicularly against the face of the fin-formed buckets of the wheel marked I. The guides or openings D are closed by gates, E, sliding vertically and covering the faces of these openings. These gates are particularly intended for regulating the water according to the variations in the supply; they may, however, be united by a ring, and used for ordinary gates in stopping and starting by an ordinary arrangement. F is the shaft, standing vertically and supported by a step, on a bridge-tree below, in the ordinary manner. The wheel is formed in two parts. The upper portion of the wheel is formed with buckets, I, composed of thin sheets of wrought iron or other suitable material set vertically and radially. They are supported above by the ring H, to which they are bolted. The water acts upon these buckets simply by percussion. G is the hub of the wheel, to which the shaft is keyed. The upper face of the hub is formed with volute corrugations, having vertical faces, gradually increasing from near the centre to the circumference, where they terminate in the orifices K in the rim of the wheel, having the form used in reaction wheels of the ordinary construction. By the means described I claim to combine the percussion force with the power of reaction, and thus utilize the entire head of water.

What I claim as my invention, and seek to secure by Letters Patent, is—

In combination with the guides D and gates E, I claim the wheel with the vertical and radially dispersed buckets I, and hub G, and orifices K; the parts being severally constructed, and the whole arranged for use substantially in the manner set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

Witnesses:

W. CAMPBELL,
JOS. CRANE.

MICHAEL CARPENTER.