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No. 119,328.

J.M.CRESS & W.L.CRESS. Water Wheel.

Patented Sep. 26, 1871.

Fig. 1.

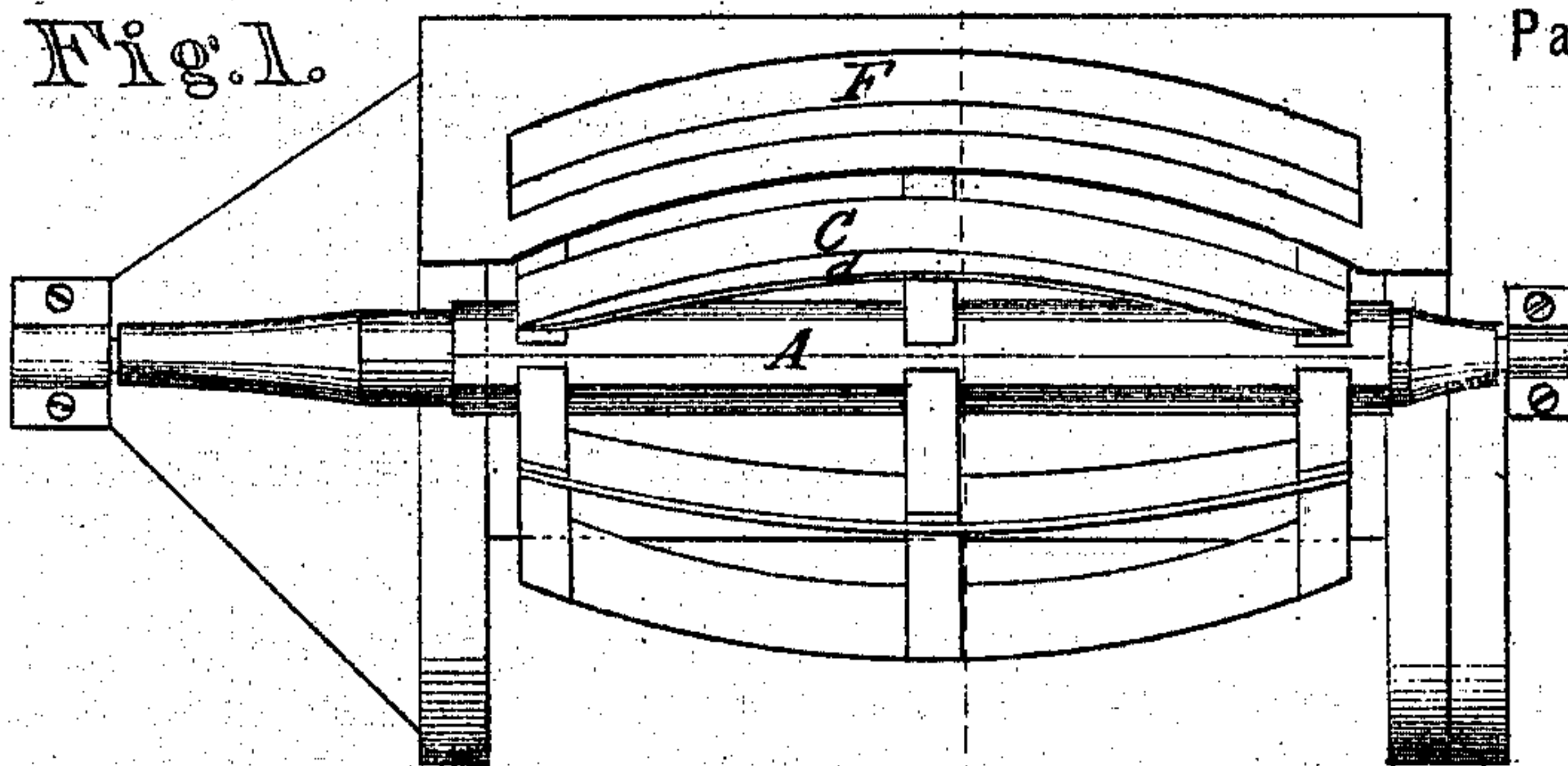
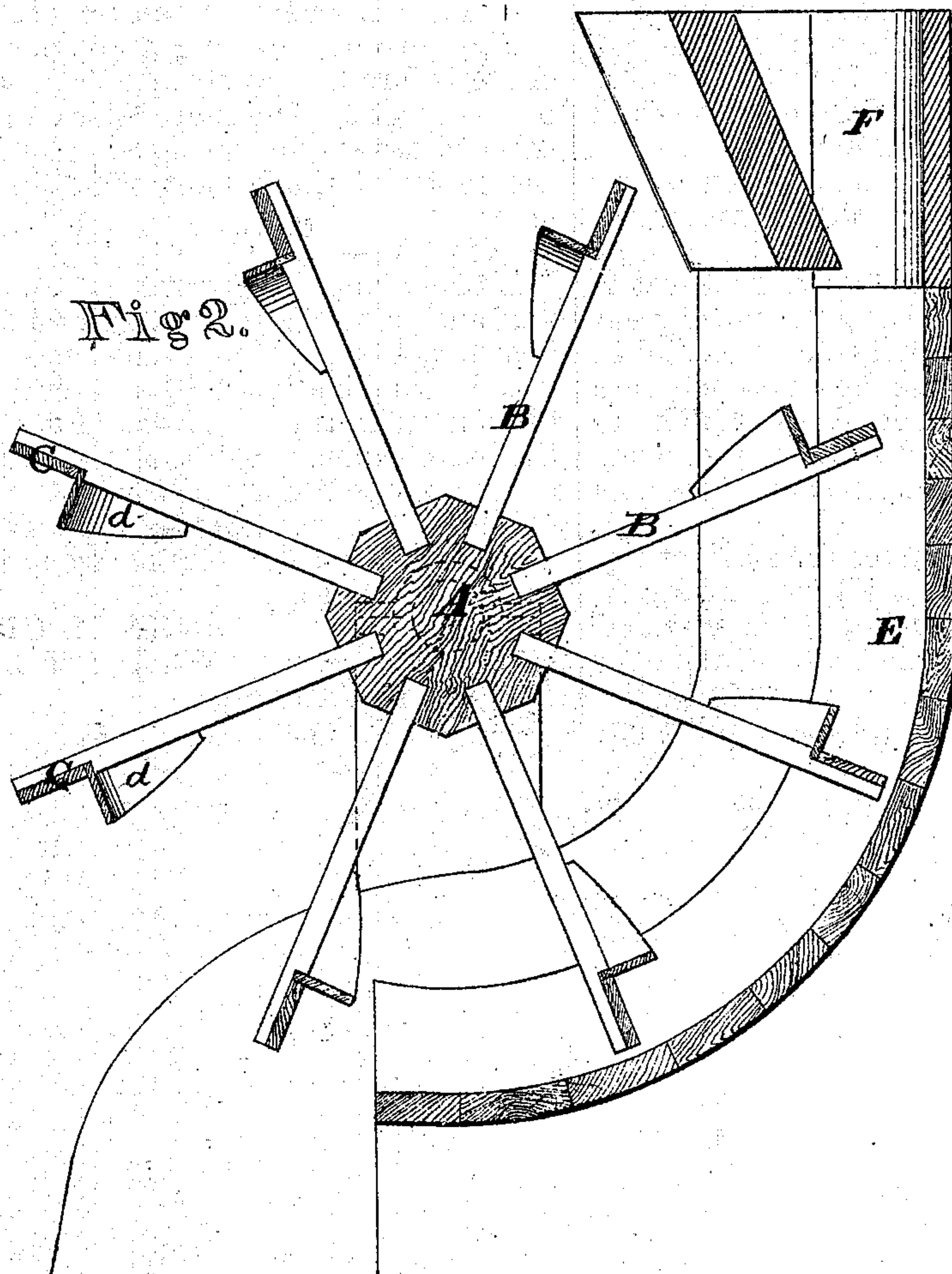


Fig 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

JOHN M. CRESS AND WILLIAM L. CRESS, OF TAYLORSVILLE, TENNESSEE.

IMPROVEMENT IN WATER-WHEELS.

Specification forming part of Letters Patent No. 119,328, dated September 26, 1871; antedated September 23, 1871.

To all whom it may concern:

Be it known that we, JOHN M. CRESS and WILLIAM L. CRESS, of Taylorsville, in the county of Johnson and State of Tennessee, have invented a new and valuable Improvement in Water-Wheels; and we do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a plan view of my invention. Fig. 2 is a central vertical transverse section of the same.

Our invention has relation to overshot water-wheels; and it consists in giving the wheel greater breadth as compared with its diameter, and in giving the bucket lengthwise the shape of an arc of a circle, providing its inner edge with a circular guide-board or back, and suiting to its outer edge a circular or rather barrel-shaped case, as hereinafter set forth.

A of the drawing designates the shaft of my wheel, from which project radially the arms B B. C C are the plane circular buckets, each provided with a circular flange or guide-board, *d*, along its inner edge. E represents the case, suited to the circular form of the edges of the buckets and simi-

lar to the interior of a half-barrel longitudinally divided. F represents the chute, secured to the upper edge of the case. Its horizontal shape is circular, corresponding to that of the buckets, but its vertical cross-section is downwardly-tapering, that wall which is a continuation of the wall of the case being vertical and the other oblique.

The current, entering through the tapering chute, is thrown directly into the bucket throughout its length. The guard-board prevents undue loss and assists the casing in guiding the flow to the center of the bucket, the point of greatest leverage.

We claim—

1. The plane circular bucket C, outwardly convex, and provided with a circular flange or guide-board, *d*, along its inner edge, as specified.

2. In combination with a water-wheel having the bucket C, the circular tapering chute F and the barrel-shaped case E, all constructed and arranged to operate as specified.

In testimony that we claim the above we have hereunto subscribed our names in the presence of two witnesses.

JOHN M. CRESS.

WILLIAM L. CRESS.

Witnesses:

B. W. JENKINS,

R. L. WILSON.