

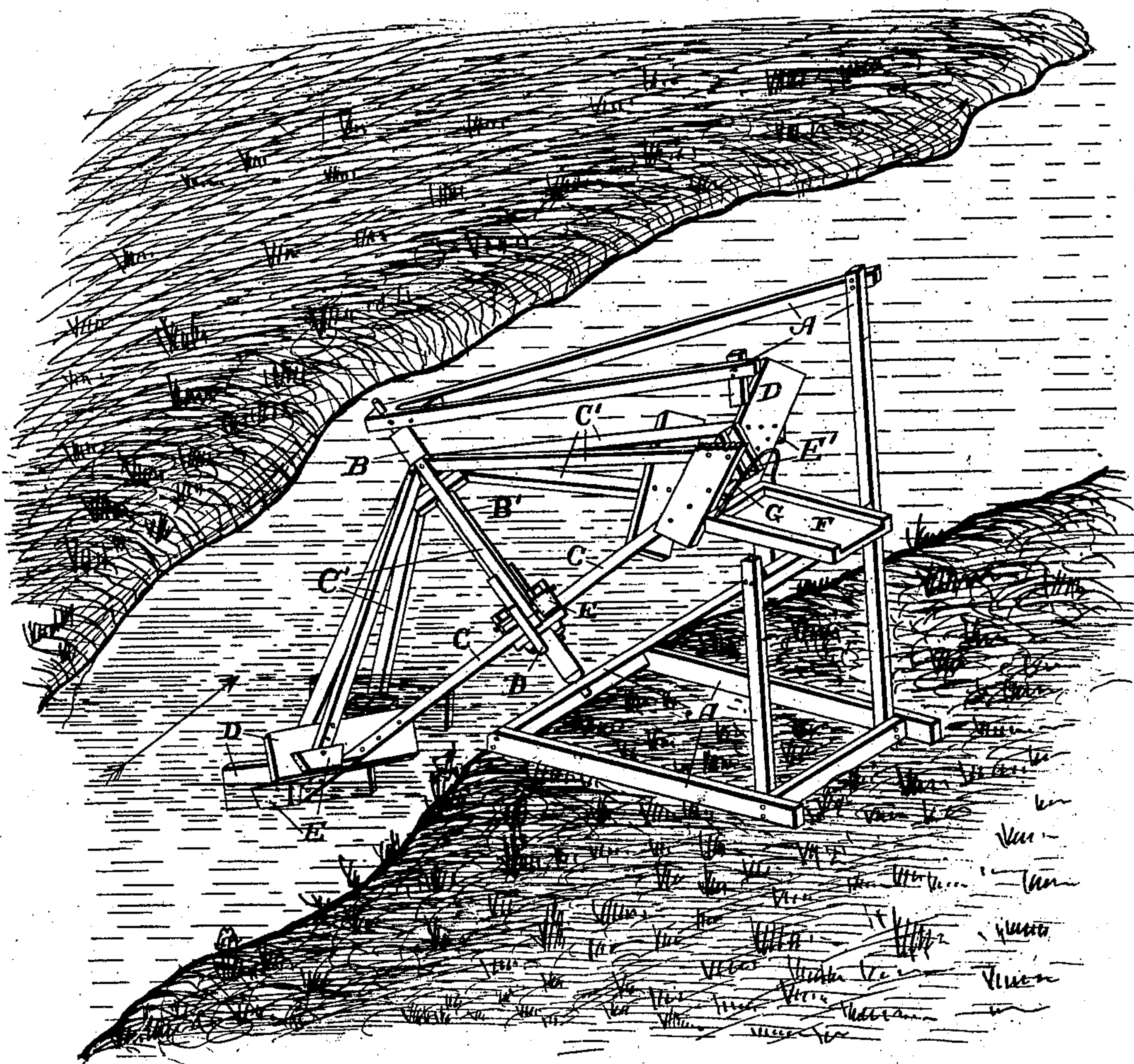
No. 690,584.

Patented Jan. 7, 1902.

D. HUTTON.
NORIA.

(Application filed Apr. 22, 1901.)

(No Model.)



WITNESSES

Chas. L. Hyde.

Mattie McGinnis.

INVENTOR

David Hutton

BY HIS ATTORNEYS

Hazard Harpham

UNITED STATES PATENT OFFICE.

DAVIED HUTTON, OF QUARTETTE, NEVADA.

NORIA.

SPECIFICATION forming part of Letters Patent No. 690,584, dated January 7, 1902.

Application filed April 22, 1901. Serial No. 57,004. (No model.)

To all whom it may concern:

Be it known that I, DAVIED HUTTON, a citizen of the United States, residing at Quartette, in the county of Lincoln, State of Nevada, have invented new and useful Improvements in Norias, of which the following is a specification.

My invention relates to devices for raising water out of a flowing stream by the force of the current thereof and delivering it at a higher elevation; and the object thereof is to provide a simple device for that purpose. I accomplish this object by the noria described herein and illustrated in the accompanying drawing, which is a perspective view of my device, a small portion being broken away to better illustrate some of the other parts, in place on the bank of a stream of water flowing in the direction indicated by the arrow.

In the drawing, A represents the frame, in which is rotatively mounted the paddle-wheel B, which is composed of the central shaft B', radial arms C at right angles thereto, brace-rods C', and paddles D. On these paddles are pivoted buckets E in such position that at each revolution of the wheel they are submerged in the water and filled and the contents therein emptied into chute F. These buckets will empty their contents into the chute as the nose E' of the bucket, which at the highest point of revolution projects beyond the paddle, contacts with the curved stationary rod G, affixed to the chute, which causes each bucket to turn on its pivotal support and empty its contents into the chute, from which the water is discharged.

I have departed from the usual construction of norias in that my paddle-wheel is not mounted to rotate vertically, but at an angle of about forty-five degrees to the face of the stream, and that the paddles are so arranged on the arms as to have the tops thereof substantially parallel to the surface of the stream when in their lowest or submerged position. This construction enables me to build the foundation of the machine on dry land without an overhanging structure and to have the paddles contact with the

stream at a considerable distance from the bank, thereby enabling the utilization of a stronger current than usually flows close to the bank. Another advantage is that the foundation of the machine does not obstruct the flow of the stream and does not need to be made as strong as if located in the water.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The herein-described noria, comprising a frame; a central shaft rotatively mounted in said frame, and set therein at an angle of forty-five degrees to the plane of the surface of the water; a paddle-wheel, rotatively mounted therein, having radial arms at right angles to the central shaft and carrying, at the extremities of said arms, paddles; said wheel adapted to rotate its paddles at an angle to the surface of the stream; brace-rods affixed to and running from the outer extremities of said arms to and affixed to the central shaft near the top thereof; buckets pivoted to said paddles having the nose thereof adapted to project beyond the paddle at the uppermost point of its revolution; a chute affixed to the frame; a rod affixed to said chute adapted to contact with the nose of the bucket at the highest point of its revolution and cause the bucket to empty its contents in the chute, substantially as described herein.

2. The herein-described noria, comprising frame A, having paddle-wheel B mounted therein, with its shaft B' at an angle of forty-five degrees, or thereabout, to the surface of the water; radial arms C affixed to said shaft at right angles thereto; brace-rods C'; and buckets E, pivoted to the extremities of the radial arms, in combination with the chute F having contact-rod G affixed thereto.

In witness that I claim the foregoing I have hereunto subscribed my name this 5th day of April, 1901.

DAVIED HUTTON.

Witnesses:

E. R. BOWMAN,
D. E. MIESS.