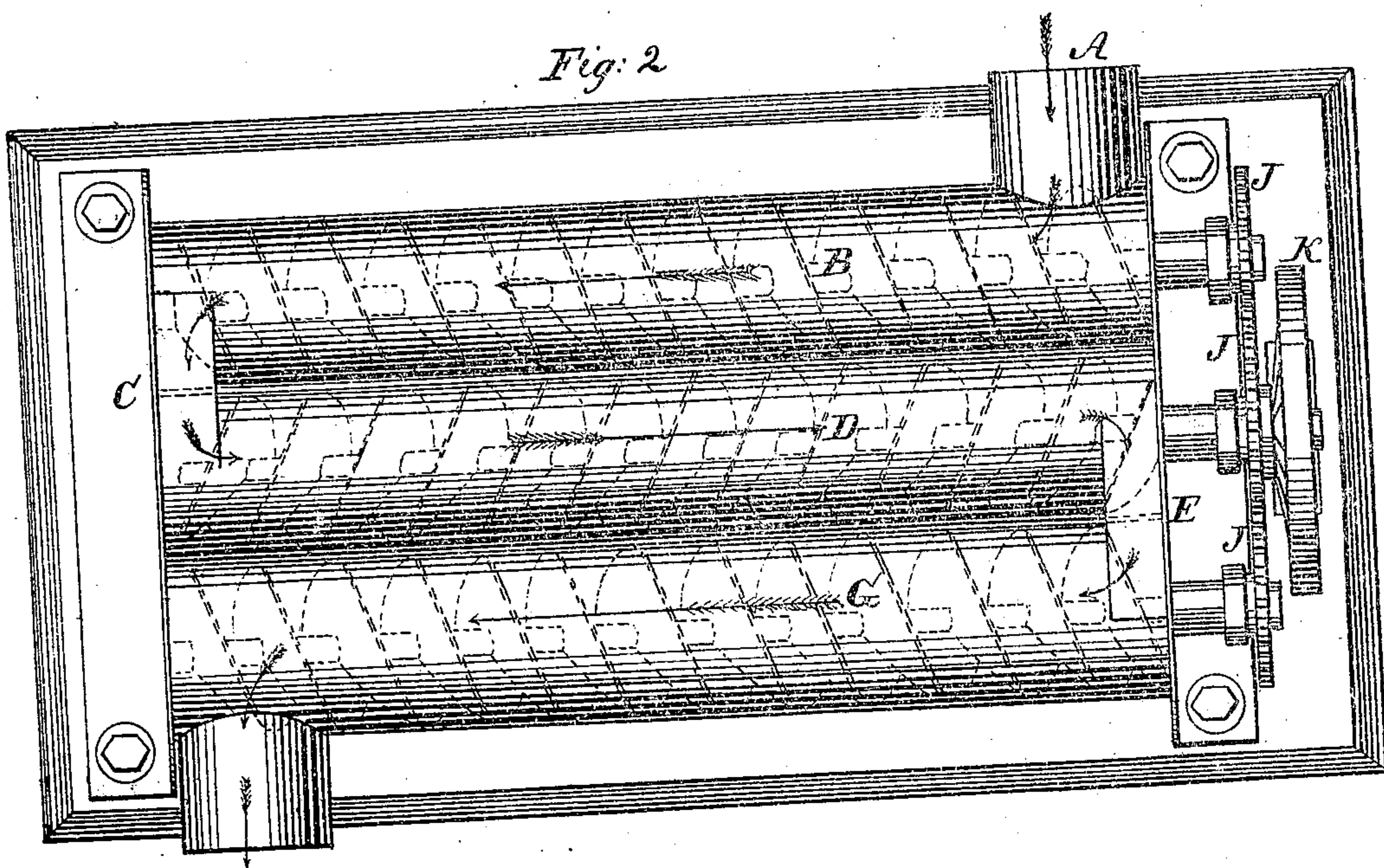
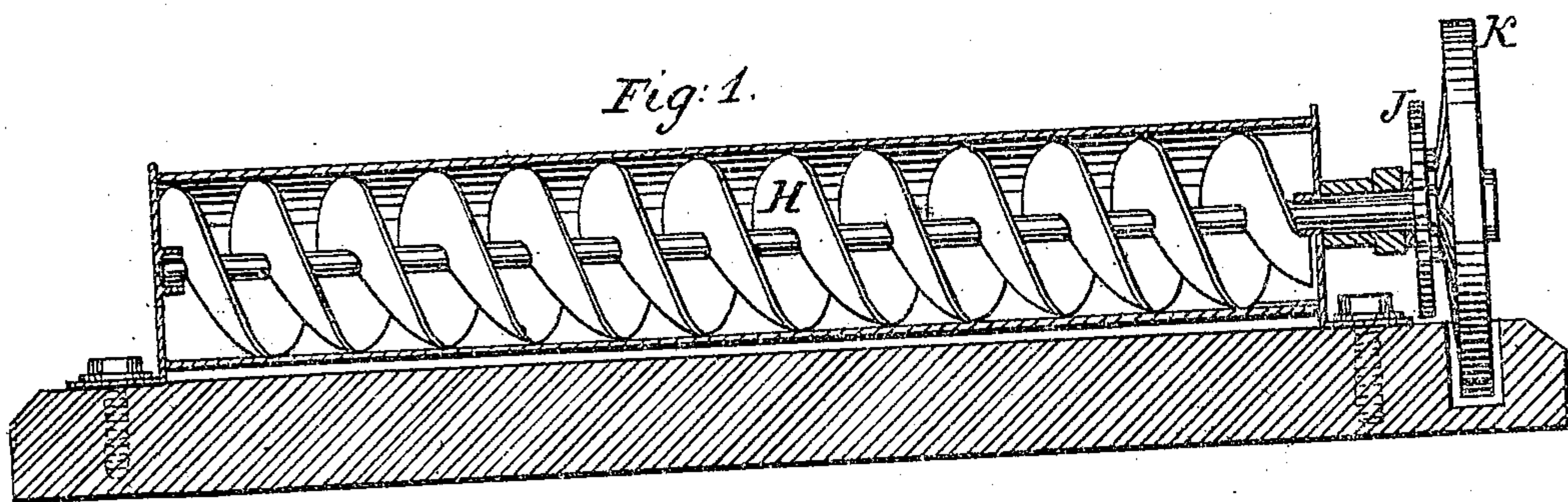


T. Welham.
Hydraulic Motor.

No 42,980.

Patented May 31. 1864.



Witnesses;
J. Franklin Reigart
Edw. T. Brown

Inventor;
Tho Welham

UNITED STATES PATENT OFFICE.

THOMAS WELHAM, OF BROWNVILLE, NEBRASKA.

IMPROVEMENT IN HYDRAULIC MOTORS.

Specification forming part of Letters Patent No. **42,980**, dated May 31, 1864.

To all whom it may concern:

Be it known that I, THOMAS WELHAM, of Brownville, Nemaha County, Nebraska, have invented a new and useful machine, which I style the "Hydraumotive Engine;" and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in combining two or more cylinders or pipes, each cylinder containing a screw-propeller of the length required and of the same length of the cylinder. These cylinders are connected together by a channel or chamber, to conduct the water from one screw and cylinder to the next screw and cylinder, and each screw connected by a toothed wheel on its shaft, each wheel gearing into the other, for the purpose of obtaining the whole pressure of the water upon the driving-wheel.

Figure 1 represents a view of the screw-propeller. Fig. 2 represents a view of the cylinders, with sectional views of the propellers inside in dotted lines.

A represents the receiving pipe or sluice, through which the water enters the first cylinder, B. The channel C connects the first cylinder with the second cylinder, D. The channel E connects the second cylinder, D, with the third cylinder, G. Each cylinder has a screw-propeller, H, of any required length to suit the length of the cylinder. The screw H

works upon its axis in the center of the cylinder, and its flanges are of the same diameter of the inside of the cylinder, with room enough to operate, and yet so close as not to allow the escape of water.

J represents a toothed wheel, one on each axle of each screw-propeller H, each wheel gearing into the next, so that any number of screw-propellers will be operated at one and the same time.

K is the main driving-wheel, that drives any machine required to be operated or connected with it. This wheel K is operated by the pressure or force of the water upon the propeller H, the water passing from thence through the cylinder and through each channel, and through any number of cylinders with their corresponding propellers, and the power of each propeller is concentrated upon the driving-wheel K until all the force or pressure of the water is exhausted.

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

Combining two or more cylinders, each cylinder containing a screw-propeller, the cylinders being connected together by channels or ducts, and each screw having a toothed wheel on its shaft gearing into the other and propelling a driving-wheel, as herein described, and for the purposes set forth.

THOS. WELHAM.

Witnesses:

EDM. F. BROWN,
J. FRANKLIN REIGART.