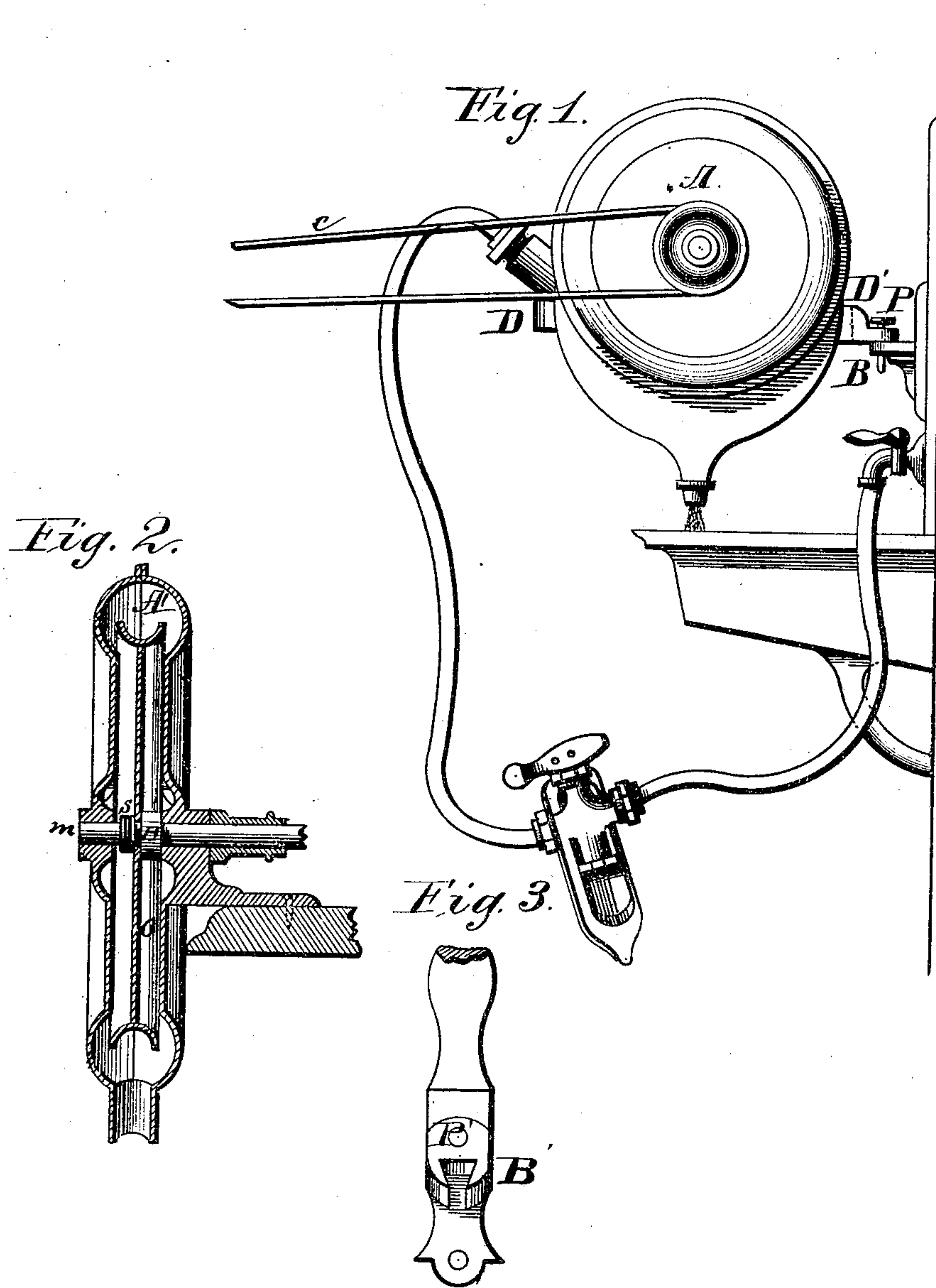


O. J. BACKUS.

REVERSIBLE ROTARY WATER MOTOR.

No. 178,582.

Patented June 13, 1876.



Attest:
Robt Barclay
James P. McLean

Inventor:
Oscar J. Backus.

UNITED STATES PATENT OFFICE.

OSCAR J. BACKUS, OF NEWARK, NEW JERSEY.

IMPROVEMENT IN REVERSIBLE ROTARY WATER-MOTORS.

Specification forming part of Letters Patent No. **178,582**, dated June 13, 1876; application filed August 20, 1875.

To all whom it may concern:

Be it known that I, OSCAR J. BACKUS, of the city of Newark, in the county of Essex and State of New Jersey, have invented certain novel and useful Improvements in the Mode of Constructing, Arranging, and Operating Reversible Rotary Water-Motors; and I hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, which are lettered to correspond with, and form a part of, this specification.

To enable those skilled in the mechanic arts to construct and operate the same, and the public to understand the nature thereof, I will describe it as follows, to wit:

Figure 1 is a side elevation of my reversible water-motor A, provided with projections or lugs D and D', fashioned to fit into the dovetail slot of the swinging section of the bracket B. (See Fig. 3.) This bracket is secured to the wall or wainscoting, and the swinging section is secured to the horizontal body of the bracket by means of a thumb screw or pin, P, which forms the pivot or hinge upon which the motor is swung either to the right or left, and by means of the dovetail projections D, cast upon and forming an integral part of the metallic case of the machine A, I am enabled to reverse the motor without having to cross the belting C.

Fig. 2 is a transverse section of the machine A, showing my improvement, which consists of a wound spiral compensating-spring, s, around the axle m, in lieu of the left-hand section of the hub H, by which means the wheel o is uniformly operated for any length of time.

Fig. 3 is a front view of the bracket, having the upper section broken off, and showing the

swinging section or plate B', dovetailed, to receive the corresponding-shaped projections D and D' upon the body of the motor-case A.

The advantage of the above-described mode of hanging water-motors is, I am enabled to move my motor to either side of the room and operate the same for running sewing-machines or other purposes without crossing the belting C at different angles, to suit the position of the sewing-machine; secondly, I counteract the wearing of the shaft by the compensating-spring s, which prevents the rattling, as well as produces a more uniform motion, of the wheel o, Fig. 2. Therefore, the novelty of my invention consists in the application of a swinging dovetailed plate, revolving upon a pin, P, which secures said plate to the stationary bracket B, so as to form a part thereof, to support and operate the swinging motor A by means of projections D, as above set forth, and shown in the drawings, which I believe to be new and useful; therefore;

What I claim as novel and useful, and wish to protect by Letters Patent of the United States, is—

1. The bracket B, with pin P and dovetail swinging plate and projections D and D' upon the case of the motor A, all arranged and operating in the manner and for the purpose set forth.

2. The compensating-spring s, in lieu of a section of the hub H, arranged and operating substantially as and for the purpose set forth.

In testimony whereof I hereunto subscribe my name in the presence of two witnesses.

OSCAR J. BACKUS.

Witnesses:

LEONARD KALISCH,
JNO. J. KING.