W. FILMER.
Wave-Power.

No. 209,391. Patented Oct. 29, 1878.

Fig. 1.

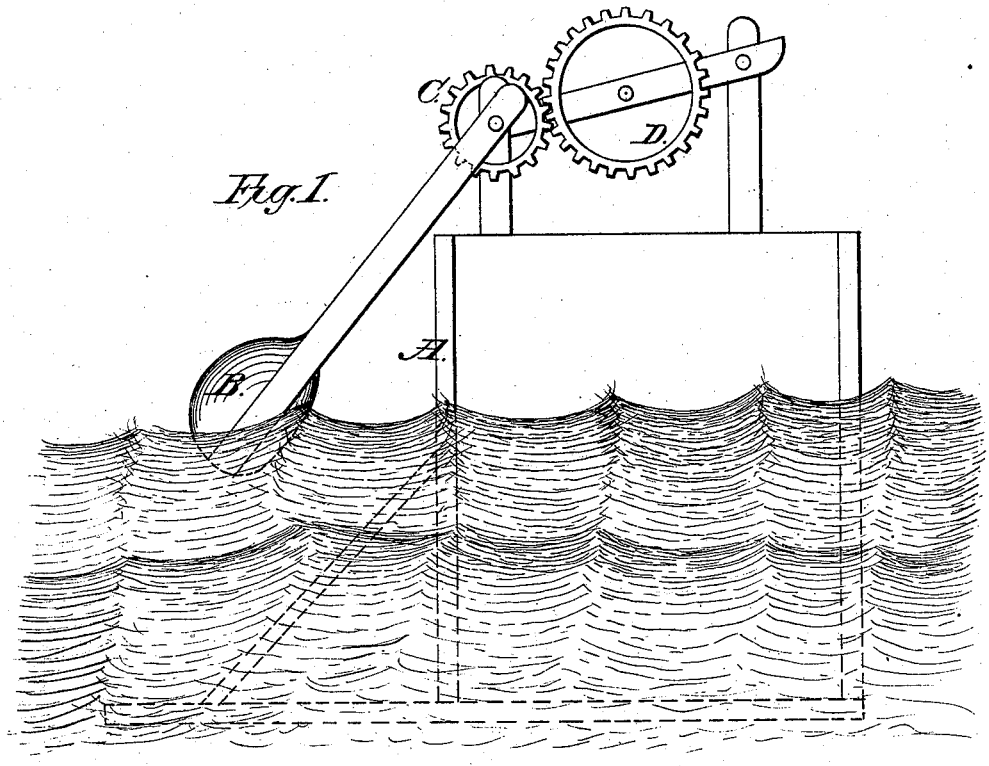
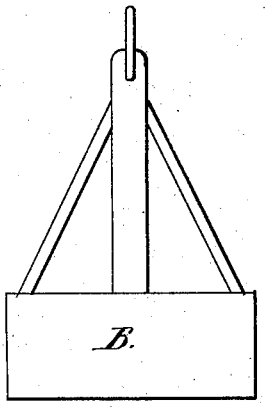


Fig. 2.



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UNITED STATES PATENT OFFICE.

WILLIAM FILMER, OF SAN FRANCISCO, CALIFORNIA.

IMPROVEMENT IN WAVE-POWER.

Specification forming part of Letters Patent No. **209,391**, dated October 29, 1878; application filed February 11, 1878.

To all whom it may concern:

Be it known that I, WILLIAM FILMER, of the city and county of San Francisco, State of California, have invented a new, useful, and Improved Means and Device for Utilizing the Power of Waves; and do hereby declare the following to be a full, perfect, and complete description of the same, with reference to the drawings for illustration.

Figure 1 shows a side view of my invention; Fig. 2, a front view of the floating lever B acted upon by the waves.

The construction of my invention is very simple, and the object is to utilize the power of waves or breakers on the sea-coast for pumping water and supplying power for various other purposes.

I construct a square or oblong frame, A, Fig. 1, of wood or other material, which is placed along the sea-shore and made stationary to the bottom. In this frame I place the floating lever B, Fig. 2, attached to the top of the frame, as shown at Fig. 1, and having at that point a gear-wheel or lever, so connected to other wheels as to transmit the power. C shows the gear-wheel on the end of the lever, and D another gear-wheel to communicate the power of the lever operated by the waves, which, coming from the sea, pass under the lever (raising it up) from the under side. The top part of the frame is made ten or more feet above the surface of the water at high tide, to be beyond the action of the tide and beyond the effect of storms.

The floating lever B is made about twenty feet wide at the bottom, more or less, according to the power required, as the size and weight of the lever determine its power. The lower portion of the lever B, which is subject to the action of the waves, is loaded with rocks, with an inclosure to keep them from being thrown out, to about ten tons weight, more or less. This part of the lever is made oval at the bottom or under side to allow it to float easily.

The operation of my invention is then as follows: The waves, passing under the lever, raise it up and turn the gear-wheel, from which the power is communicated. It will be observed that the power exerted by the lever, and necessary to move the gearing or lever one way, will be supplemented by the gravity of the weight to depress the lever and move it the opposite way after the wave has passed by, and the weight necessary to reverse the action of the wheels or lever will be the required weight of the lever.

In this way a simple and cheap means of power is obtained for pumping water and various other purposes along the sea-coast or at a point where waves can operate the same.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

The floating lever B in the stationary frame A, in combination with gearing for the communication of power, as and in the manner herein described.

WILLIAM FILMER.

Witnesses:
ROBT. ASH,
J. J. QUINN.