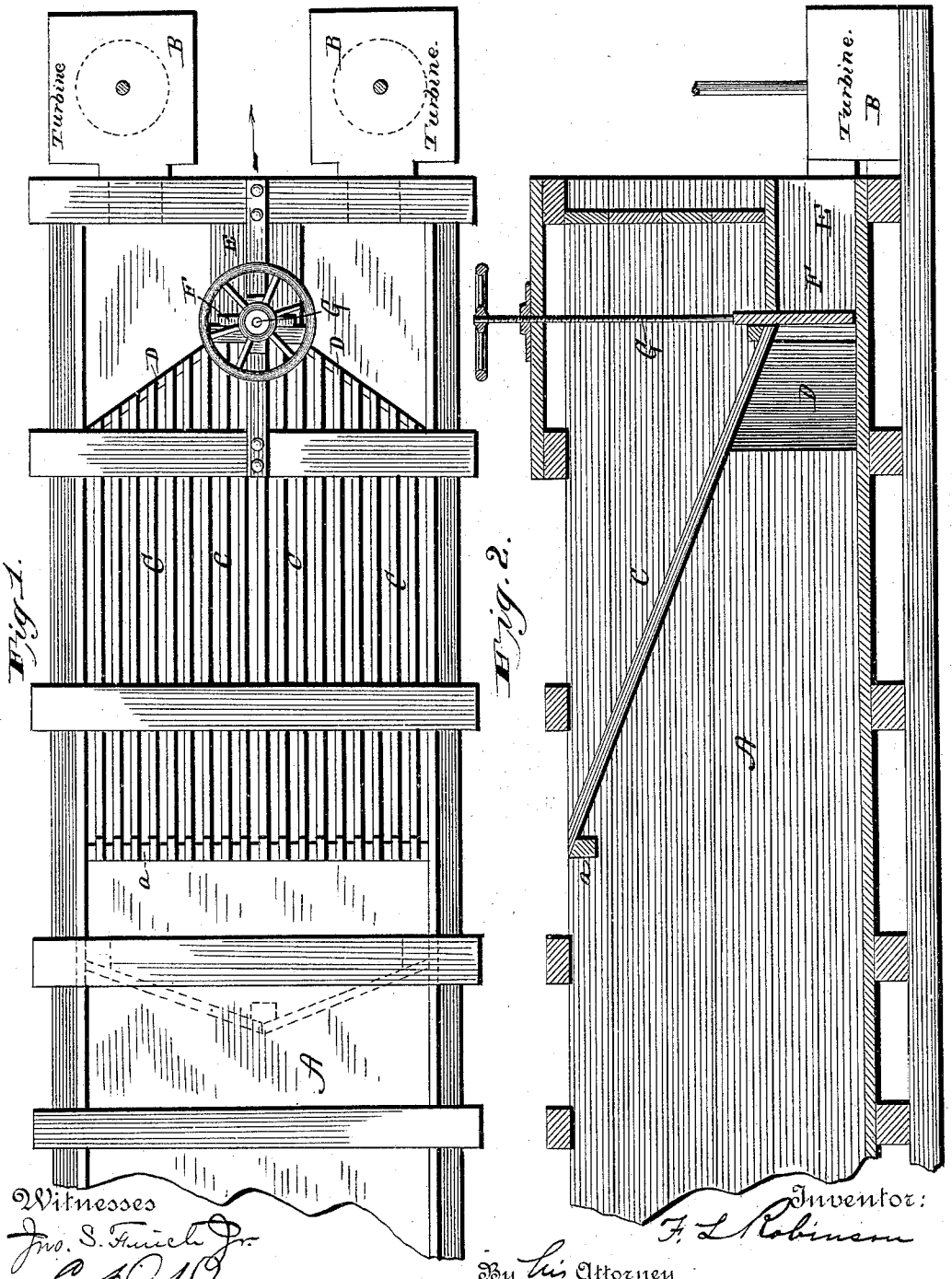
(No Model.)

F. L. ROBINSON.

FLUME.

No. 419,887. Patented Jan. 21, 1890.



Witnesses
Jno. S. Finch Jr.
C. A. Evans

Inventor:
F. L. Robinson
By his Attorney
C. A. Alexander

N. PETERS. Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

FRANK L. ROBINSON, OF CARIBOU, MAINE.

FLUME.

SPECIFICATION forming part of Letters Patent No. 419,887, dated January 21, 1890.

Application filed July 5, 1889. Serial No. 316,490. (No model.)

To all whom it may concern:

Be it known that I, FRANK L. ROBINSON, a citizen of the United States, residing at Caribou, in the county of Aroostook and State of Maine, have invented certain new and useful Improvements in Flumes, of which the following is a specification, reference being had therein to the accompanying drawings, in which—

Figure 1 represents a plan view of an ordinary water-wheel flume embodying my invention, and Fig. 2 a longitudinal vertical sectional view of the same.

The essential object of this invention is to provide simple means for collecting and concentrating and carrying off all ice, floating matters, and refuse of all kinds from the water in the flume, whereby nothing will be permitted to enter the turbines that will have a tendency to injure them, as will be more fully hereinafter set forth.

In the annexed drawings, the letter A designates the flume, which may be constructed in any well-known manner, and B B two turbines or water-wheels connected to and communicating with the rear end of the flume in any suitable manner.

Secured in the flume and extending entirely across the same is a grating of slats C, which incline up the flume and are attached to a cross-bar *a* at their upper ends, their lower ends being secured to inclined concentrating-boards D D, secured in the bottom of the flume. These boards are inclined from the sides of the flume toward its center and serve to direct the collected refuse into a central penstock or waste-conduit E, leading out of the flume between the two turbines. This waste-outlet is controlled by a vertically-movable gate F, which is operated preferably by a screw G.

When a quantity of refuse has been collected and concentrated by the rack and inclined boards, the waste-gate is raised and the refuse carried out by the rush of the water, leaving the flume perfectly free of all rubbish. This method of collecting and carrying off the refuse from the flume is obviously advantageous over the old method of using a vertical grating and clearing the same by hand.

It is evident that I may employ only one of the inclined boards, should the exigencies of the case require it, without in the least departing from the spirit of the invention.

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

The combination, with a flume, of the upwardly-inclined grating, a concentrating board or boards in the bottom of the flume at the lower end of the said grating, this board leading to a waste-opening, and a valve or gate for closing said opening, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

FRANK L. ROBINSON.

Witnesses:
FRANK HUBBARD,
W. H. ROBINSON.