H. Crumlisk

Steam Motor.

No. 85,718. Patented Jan. 5. 1869.

Fig. 1.

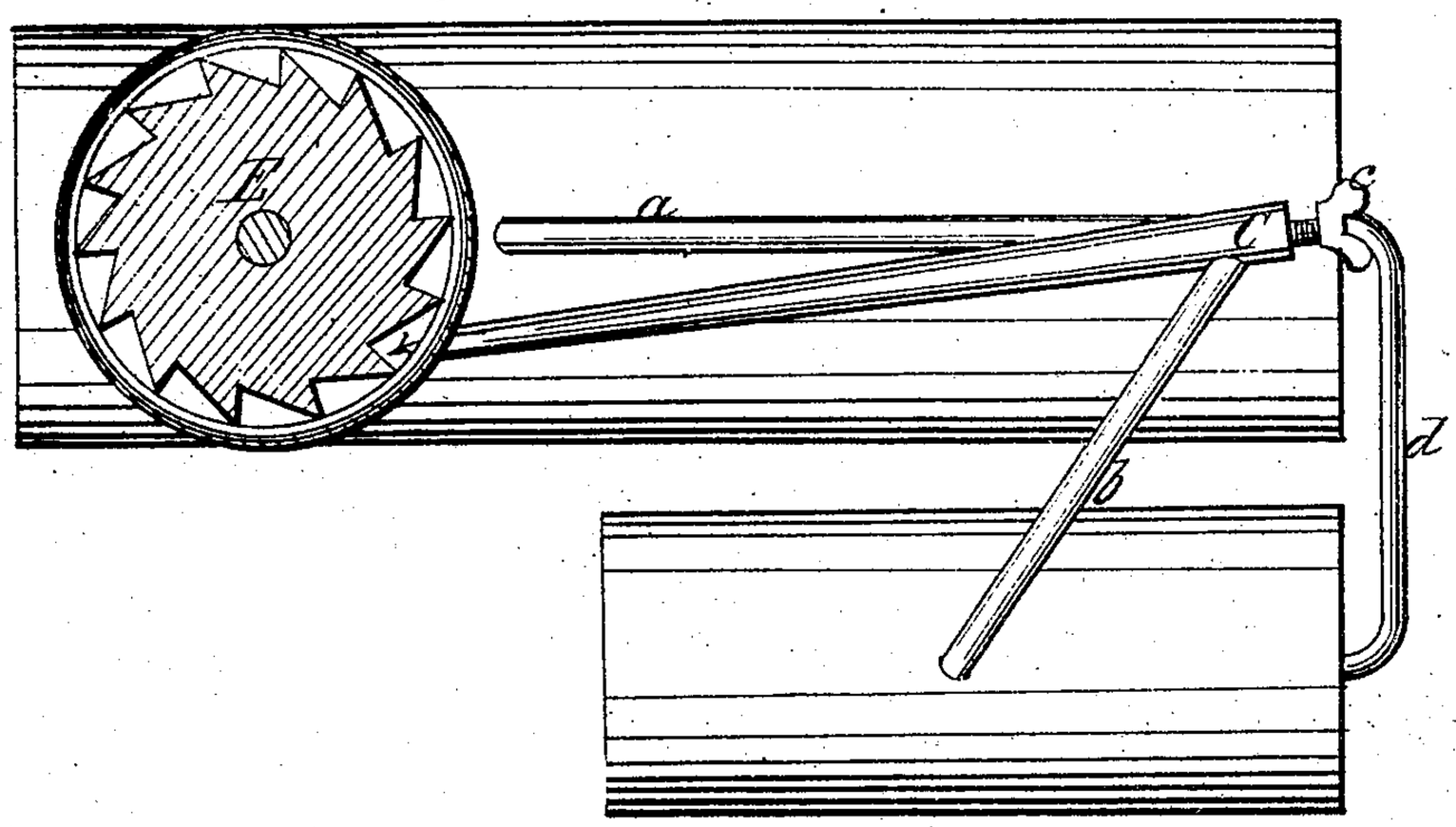
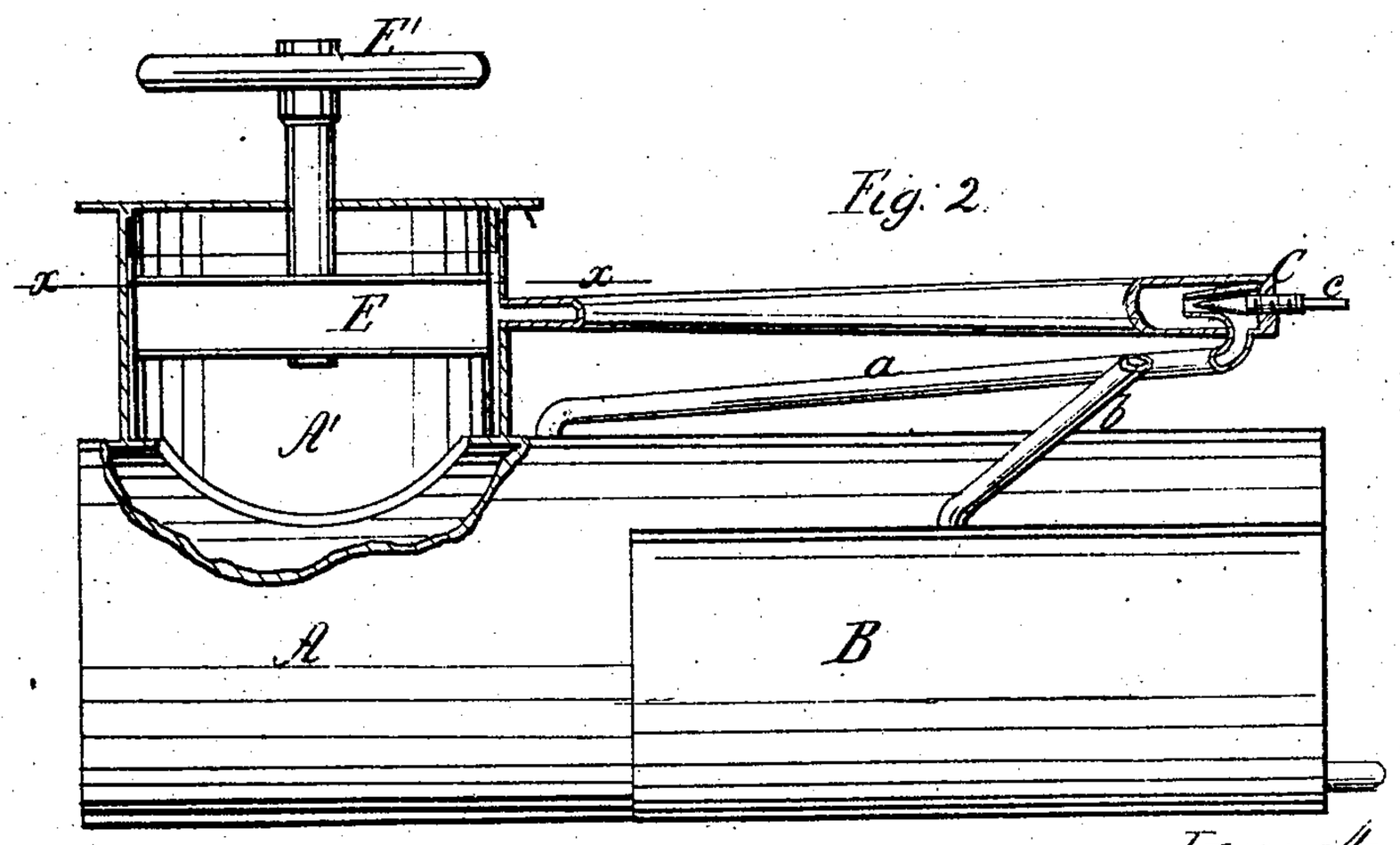


Fig. 2.



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HUGH CRUMLISK, OF KEOKUK, IOWA.

Letters Patent No. 85,718, *dated January* 5, 1869.

IMPROVED STEAM-MOTOR.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, HUGH CRUMLISK, of Keokuk, in the county of Lee, and State of Iowa, have invented a new and improved Motive-Power; and I do hereby declare the following to be a full, clear, and exact description of the same, sufficient to enable others skilled in the art to which the invention appertains, to fully understand and use it, reference being had to the accompanying drawings, forming part of this specification, and in which—

Figure 1 represents a horizontal section through the line *x x*, fig. 2, of a boiler, injector, and wheel, arranged according to my method of obtaining power; and

Figure 2 represents a side elevation of the same, with a portion of the boiler broken away to show the arrangement of the wheel.

Similar letters of reference indicate corresponding parts.

This invention relates to a new method of making the power obtained from steam available, and consists broadly in the employment of a Giffard injector, in connection with a wheel, the arrangement being such that the latter is caused to revolve by the action of the former.

To enable others to make use of my new motive-power, I will proceed to describe fully how it may be constructed and applied to use.

In the drawings—

A represents a boiler, of any approved construction, which is provided with the chamber A′, extending at right angles from it, as shown.

B represents the cold-water tank, which is located upon one side of the boiler, at any convenient distance from it.

C represents the Giffard injector, which receives water from the cold-water tank B through the pipe *b*, and steam from the boiler A through the pipe *a*, as clearly shown in fig. 1.

d represents a pipe, connecting boiler A with tank B, the attachment of which is made near the bottom of each, as is shown in fig. 1.

E represents the wheel, the shaft of which turns in bearings in the cap of the chamber A′.

The upper end of this shaft is provided with the fly-wheel E′, from which the power may be communicated in any proper manner to any desired point.

The pipes and injector are provided with suitable cocks, as is usual for the proper performance of their work.

The operation is as follows:

The proper cock *c* having been turned, steam is admitted from the boiler A, through the pipe *a*, into the injector C. Water is at the same time admitted from the tank B through the pipe *b*. The injector now operates as usual. The water received from the tank B is discharged with great force from the injector C into the chamber A′, against the blades of the wheel E. From the fly-wheel E′, the power is taken, as before described. The water, passing into the chamber A′ from the injector, falls into the boiler proper, A, and mingles with its contents, to become again converted into steam. By means of the pipe *d*, the water in the boiler is permitted to flow back into the tank B, in order that the place of that drawn off may be supplied.

It will thus be observed that the operation of my motor is continuous.

If desired, the position of the water may be changed by locating the boiler in a vertical position, instead of a horizontal one. The form of boiler and its location, however, are immaterial points.

I do not confine myself to any particular form or construction of boiler, or arrangement of parts; neither do I limit myself to any form of wheel.

Having fully described my invention,

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

1. A motor, consisting of a wheel, which is caused to revolve by the action of an injector, arranged substantially as described for the purpose specified.

2. The motor, described, consisting essentially of the boiler A, tank B, injector C, pipes *a b d*, and wheel E, the whole being constructed and arranged substantially as described, for the purpose set forth.

HUGH CRUMLISK

Witnesses:

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