

(No Model.)

J. H. FISHER.
REGULATOR FOR WINDMILLS.

No. 512,649.

Patented Jan. 9, 1894.

Fig. 1.

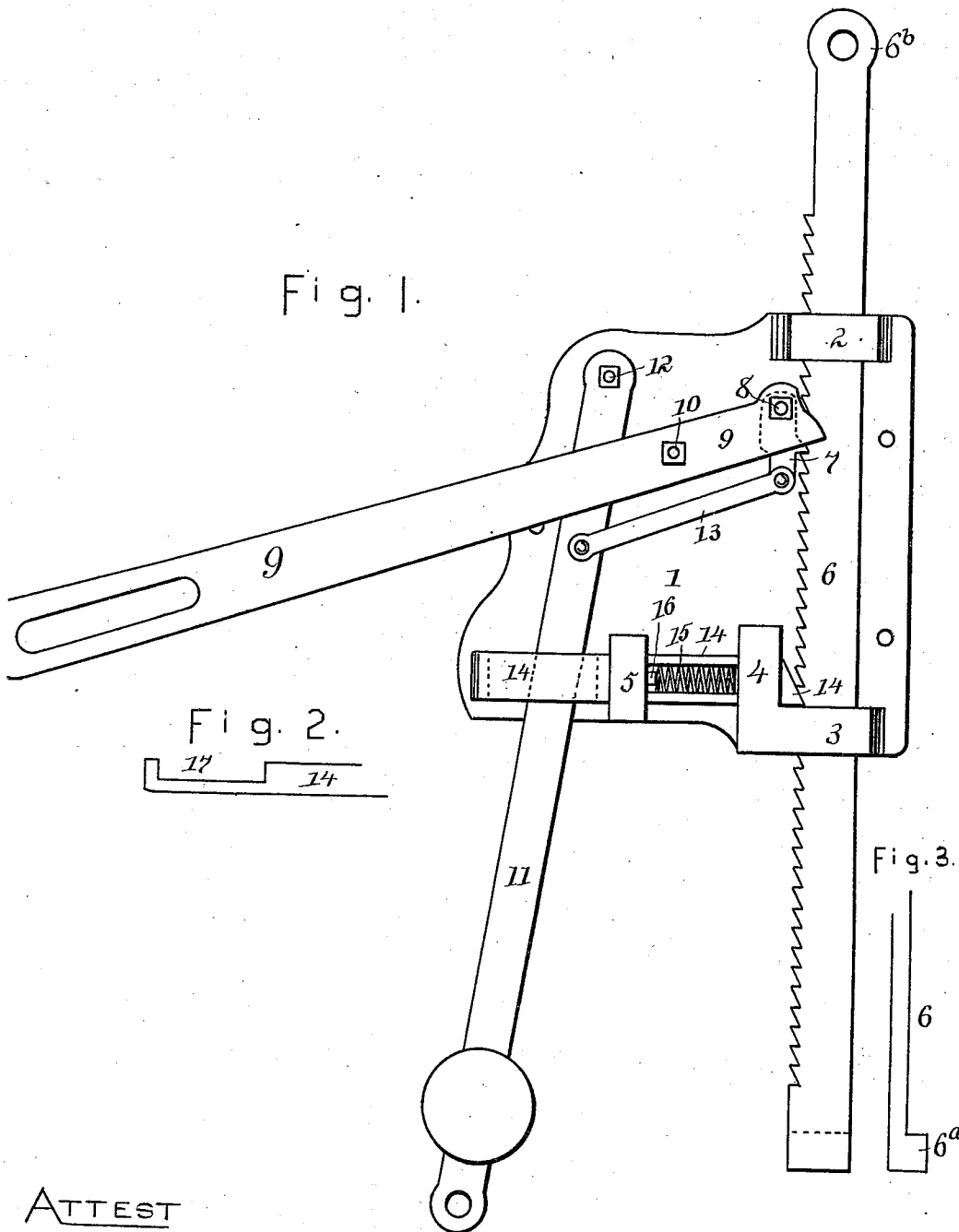


Fig. 2.

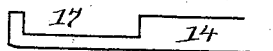
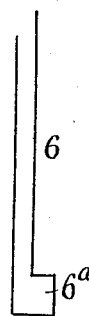


Fig. 3.



ATTEST

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by his attorney
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UNITED STATES PATENT OFFICE.

JOSEPH H. FISHER, OF DECATUR, ILLINOIS.

REGULATOR FOR WINDMILLS.

SPECIFICATION forming part of Letters Patent No. 512,649, dated January 9, 1894.

Application filed March 1, 1893. Serial No. 464,187. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH H. FISHER, of Decatur, in the county of Macon and State of Illinois, have invented certain new and useful
5 Improvements in Regulators for Windmill-Pumps, of which the following is a specification.

This invention is designed to coact with a windmill, a pump operated by the windmill,
10 a tank supplied with water from the pump and a float in the tank, the operation being such that when the tank becomes filled with water the windmill will be thrown out of action or out of connection with the pump.

15 The invention is embodied in the details of construction and combinations of parts hereinafter set forth and claimed, reference being made to the accompanying drawings, in which—

20 Figure 1 is an elevation of the regulator. Fig. 2 is a plan of an end of the detent, and Fig. 3 is a side view of the lower end of the ratchet bar.

The plate 1 forms a support for the different elements of the device, and it is adapted to be secured in a vertical position to a part of the frame of the windmill, or to a post or other permanent support under the same. When so secured the ratchet bar 6 is connected through head 6^a with the gearing of the windmill, the bar 9 is connected at its swinging end with the pump rod, and bar 11 is connected with the float in the tank. The plate 1 has bearings 2 and 3 for the ratchet
35 bar, and bearings 4 and 5 for the detent 14. The pump-rod bar 9 is pivoted at 10 on plate 1 and it is provided with pawl 7 which pivots at 8 and is adapted to engage the teeth of the ratchet bar. Bar 11 is pivoted at 12 on
40 plate 1. It extends through a recess in detent 14, such recess being indicated at 17 in Fig. 2, and it is suitably weighted at its swinging end. Rod, or bar, 13 connects bar 11 with pawl 7. The detent 14 is held yieldingly in
45 contact with the ratchet bar by means of spring 15 which bears at one end against the detent and at the other against pin 16 on the plate. The spring fits in a slot in the detent,

as indicated in the drawings, and is held therein in any desirable manner.

The float is connected with bar 11 in such
50 manner that when the tank is nearly filled with water the bar will be permitted to swing into the position shown in the drawings, so carrying pawl 7 into contact with the ratchet
55 bar and permitting the detent to assume an operative position. When this is done, bar 9, which is continually oscillated by the pump rod, will act through pawl 7 on the ratchet
60 bar and will, with the assistance of the detent, draw the ratchet bar intermittently downward and throw the windmill out of gear. When the water in the tank becomes lowered to any predetermined extent the float will
65 draw the lower end of bar 11 away from the ratchet bar, moving the pawl and the detent from contact therewith, and the ratchet bar will rise and permit the windmill to again act on the pump.

The pawl is held in contact with the ratchet
70 bar by the weighted bar 11, and the detent is held to its work by spring 15. The bar 11 has sufficient play in recess 17 of the detent to permit the pawl and the detent to operate without affecting one the other, and the
75 ratchet bar has a projecting surface as 6^a in Fig. 3 which prevents the ratchet bar from being drawn out of the plate.

I claim—

An automatic regulator for windmill pumps
80 consisting of a ratchet bar, as 6, adapted to connect with and operate the disconnecting gear of a windmill, a swinging bar, as 9, adapted to be actuated by a pump rod, a pawl,
85 as 7, suspended from an end of the pump-actuated bar in operative contact with the ratchet bar, a spring actuated detent, as 14, a pendulous bar, as 11, playing in a recess in the detent, and a rod, as 13, connecting bar
90 11 with pawl 7, substantially as set forth.

In testimony whereof I sign my name in the presence of two subscribing witnesses.

JOSEPH H. FISHER.

Attest:

E. S. McDONALD,
L. P. GRAHAM.