A. Lemjeke.

Wind Wheel.

No. 14,459. Patented Mar. 18, 1856.

Fig. 2

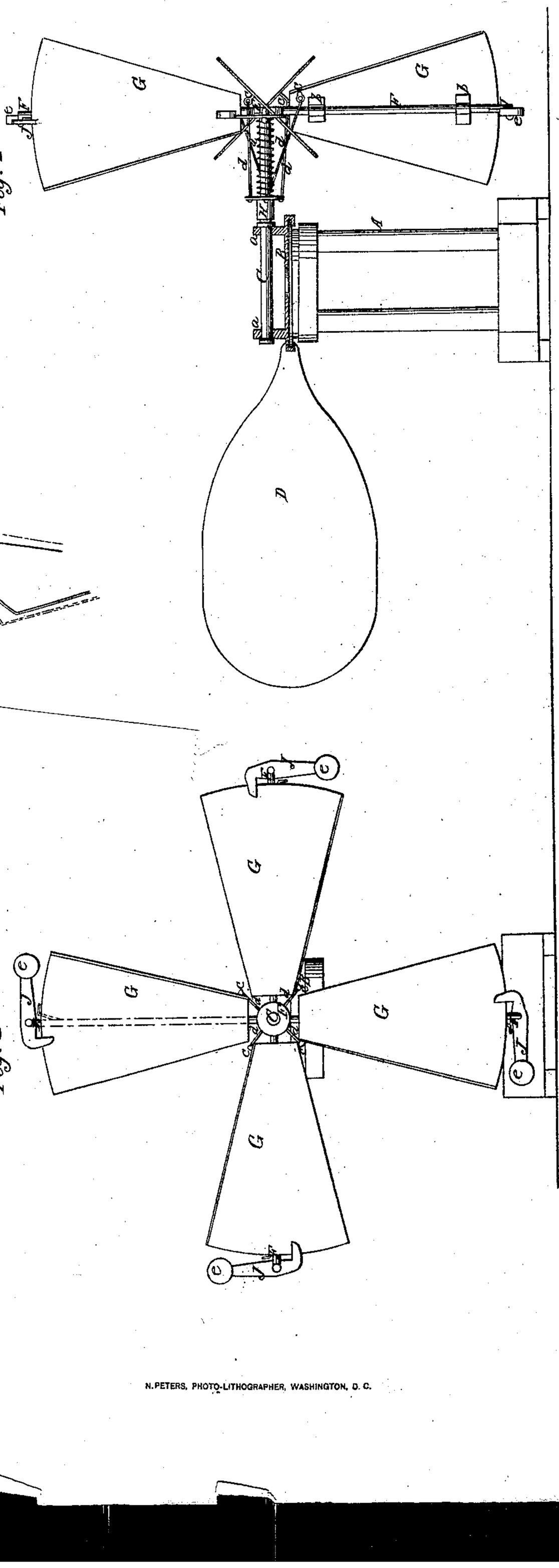

Fig. 3

Fig. 1

UNITED STATES PATENT OFFICE.

A. LEMPCKE, OF PLEASANT MOUNT, PENNSYLVANIA.

IMPROVED SELF-REGULATING WIND-WHEEL.

Specification forming part of Letters Patent No. **14,459**, dated March 18, 1856.

To all whom it may concern:

Be it known that I, A. LEMPCKE, of Pleasant Mount, in the county of Wayne and State of Pennsylvania, have invented a new and Improved Self-Regulating Windmill; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a front or face view of my improvement. Fig. 2 is a side view of the same. Fig. 3 is a perspective view of the outer end of one of the sails or wings with weighted lever attached.

Similar letters of reference indicate corresponding parts in the several figures.

My invention consists in the employment or use of a spiral spring and weighted levers applied or connected to the wings or sails, as will be presently shown and described, whereby the windmill is rendered self-regulating.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A represents a framing, on the upper end of which a rotating cap B is placed, said cap having two uprights *a a* upon it, in which a shaft C is fitted. To one side of the cap B a vane D is attached, said vane being in line with the shaft C. To the outer end of the shaft C there is attached a hub E, having radial arms F connnected to it, any proper number of arms being used. To each arm F there is attached a wing or sail G. The wings or sails are attached to the arms by straps *b*, as shown in Fig. 2, the wings or sails being allowed to turn freely on the arms. To the inner end of each wing or sail there is attached a short rod *c*, to which wires *d* are secured. These wires are secured to a collar H, which is allowed to slide on the shaft C. Between the collar H and hub E and around the shaft C there is placed a spiral spring I, which keeps the wings or sails fully presented to the wind when they are not acted upon by any extraneous force. To the outer end of each arm F there is attached a lever J, one end of which has weights *e* attached. The opposite ends of the levers are bent or hooked, as shown clearly in Figs. 1 and 3. When the wings or sails G rotate with a moderate speed, they will be kept to the wind by means of the spring I; but if the speed of the wings or sails increases in consequence of an increased velocity of the wind the weights *e* will be thrown outward by centrifugal force and the bent or hooked ends of the levers J will pass over the outer ends of the wings or sails at one side of the arms F and turn them more obliquely to the wind, the tension of the spring I being overcome.

By this means a greater or less area or surface of the wings or sails will be presented to the wind according to its velocity and the windmill rendered self-regulating.

I do not claim separately the spiral spring I attached to the sails or wings, for that has been previously used; but,

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

The spiral spring I or its equivalent, in combination with the weighted levers J, arranged substantially as shown, for the purpose specified.

A. LEMPCKE.

Witnesses:

ROBERT CLARK,

GEORGE R. SOPER.