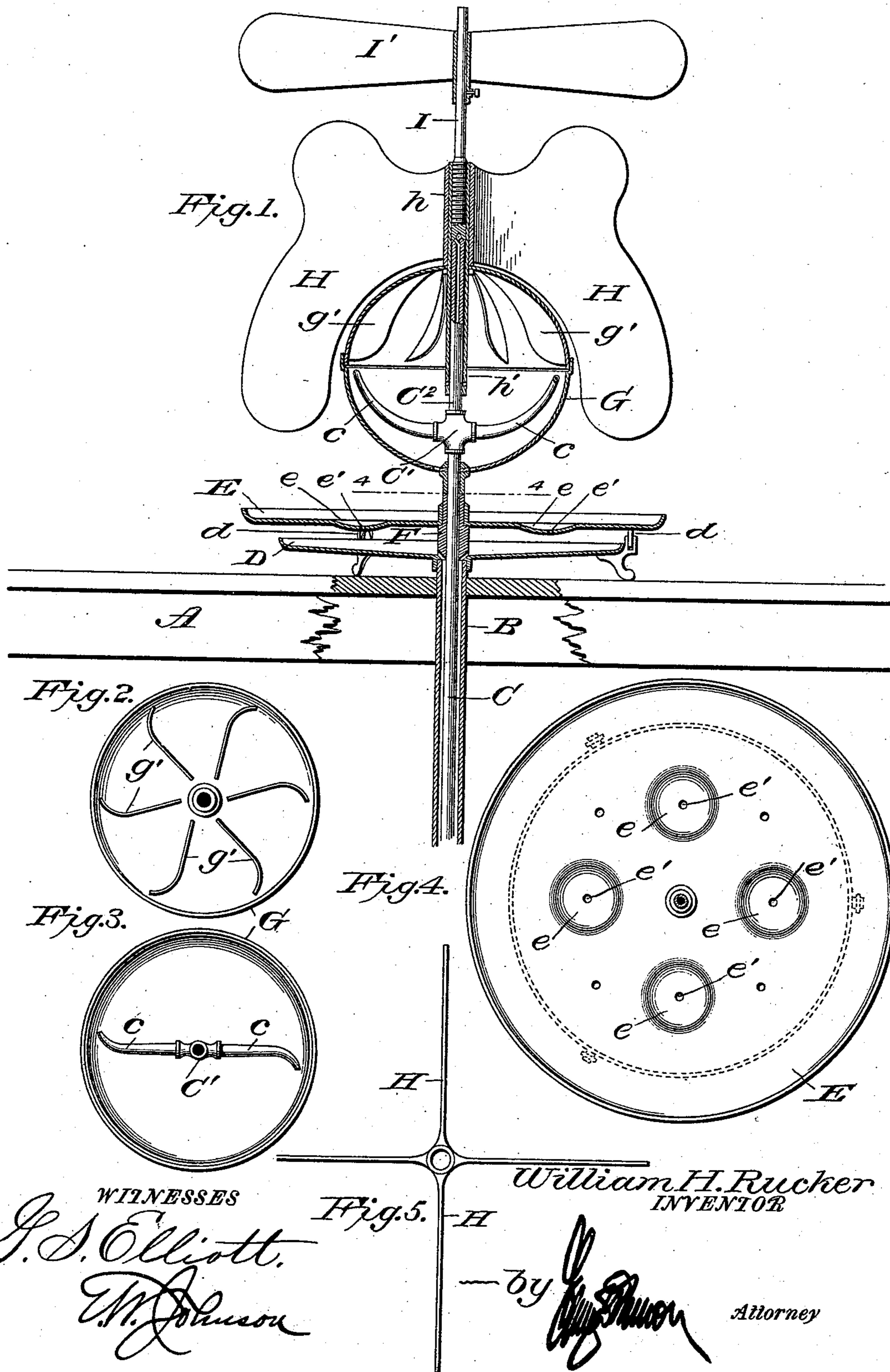


(No Model.)

W. H. RUCKER.
COMBINED WATER MOTOR AND FAN.

No. 516,901.

Patented Mar. 20, 1894.



UNITED STATES PATENT OFFICE.

WILLIAM H. RUCKER, OF HILLSBOROUGH, OREGON.

COMBINED WATER-MOTOR AND FAN.

SPECIFICATION forming part of Letters Patent No. 516,901, dated March 20, 1894.

Application filed January 6, 1894. Serial No. 495,935. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. RUCKER, a citizen of the United States of America, residing at Hillsborough, in the county of Washington and State of Oregon, have invented certain new and useful Improvements in a Combined Water-Motor and Fan; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The object of this invention is to provide a device which is adapted to be placed upon tables for use as a fly-fan and tray, so that articles placed upon the tray will be subjected to the draft caused by the rotation of the fan and the cooling influence of the medium used for operating the fan.

The invention consists in the combination of a support or tray mounted above a water receptacle through which tray and water receptacle passes a tube for conveying fluid under pressure to arms located within a globe, one part of the globe having blades against which the fluid strikes so as to rotate the same, as well as the vanes and fans connected thereto, for creating a draft or agitating the surrounding air.

The invention further consists in the construction and combination of the parts, as will be hereinafter fully set forth, and particularly pointed out in the claims.

In the accompanying drawings, forming part of this specification, Figure 1 is a sectional view. Figs. 2 and 3 are detail views looking into the two parts of the globe. Fig. 4 is a plan view of the tray, and Fig. 5 is a plan view of the fan.

A designates a table which is provided with an aperture for the passage of a waste-pipe B, and through this waste-pipe passes the water or fluid pressure supply-pipe C. Upon the table rests a receptacle D which is adapted to catch the waste water and convey it to the pipe B, and at its outer edge this receptacle supports rollers *d* upon which a tray E rests, said tray having an upturned edge and depressions *e* with central perforations *e'*.

Surrounding the pipe C above the water

receptacle D is a support F, the lower end of which is provided with openings which lead from the water receptacle to the waste-pipe B, and at the upper end of this support is attached the lower half of the globe G. The supply-pipe C is provided within the globe with a four-way connection C', to the lateral openings in which are connected arms *c* which are gradually reduced or taper to their outer ends, said ends being bent so as to direct the fluid under pressure against the blades *g'* attached to the inner side of the upper half of the globe, the blades being curved as shown in Fig. 2. To the upper opening in the connection C' is connected a tube C² the upper end of which is conical and provided with small openings through which water can pass to lubricate the bearing at this point, which bearing sustains the weight of the rotary portion of the device.

H H designate fans or vanes which are of suitable shape and are connected to a tube *h*, said tube being connected to the upper part of the upper half of the sphere or globe G so that it will turn therewith. Within the tube *h* is secured a tube *h'* which fits over the tube C², and the upper part of this tube *h'* is threaded for the reception of a rod I the upper end of which carries a fan I' while its lower end forms a bearing which rests upon the conical end of the tube C². The upper half of the sphere or globe G, the vanes H and the fan I' are all connected rigidly to each other and are supported by the tube C², the lower edge of the upper half of the globe lying within a flange at the upper edge of the lower half.

It is obvious that when water is fed into the pipe C under pressure the upper conical end of the tube C² will be kept cool and moist, and that the water will exert a slight lifting tendency upon the rotary parts of the device so that it will revolve with but little friction.

In operation the pipe C is connected with a suitable fluid pressure supply, preferably water, which is forced out of the bent ends of the arms *c* and impinges against the blades on the inner side of the upper half of the globe and causes a rotation thereof and of the parts connected rigidly thereto which not only serve as a fan but induce a draft upon provisions or articles placed upon the tray.

The fluid after striking against the blades of the upper half of the globe will fall into the lower half and pass through the openings in the lower part thereof to the tray E from which it is discharged into the water receptacle D and from there into the waste-pipe B.

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

10 1. A motor for fans comprising two suitably supported hemi-spheres, a stationary supply pipe and support having arms for the discharge of fluid under pressure, the upper hemi-sphere having blades against which the
15 fluid strikes to impart a rotary motion to said hemisphere, and fans connected to said rotary hemisphere, substantially as shown and for the purpose set forth.

20 2. In combination with a water receptacle connected with a waste-pipe, a stationary hemi-sphere which incloses arms connected with a water-supply, a rotary hemisphere suitably supported and actuated by the water which is forced under pressure out of the ends
25 of the arms carried by the supply pipe, and fans connected to the rotary hemisphere, sub-

stantially as shown and for the purpose set forth.

3. In a rotary fan, the combination, of a water receptacle connected with a waste-pipe, 30 a hemisphere having discharge openings, a supply-pipe having arms *c* and an upwardly projecting tube *C*², a hemisphere having inwardly projecting blades, a rod *I* which engages with a tube which supports the hemi- 35 sphere having the blades and into which the pipe *C*² passes, and vanes connected to the upper hemisphere, substantially as shown and for the purpose set forth.

4. In combination with a water supply pipe 40 having arms *c c* and a supporting spindle *C*², of a tube adapted to fit over the spindle *C*², vanes *H* attached to the tube, and a hemisphere with inwardly projecting blades, substantially as shown and for the purpose set 45 forth.

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

WILLIAM H. RUCKER.

Witnesses:

D. M. C. GAULT,
BENTON BOWMAN.