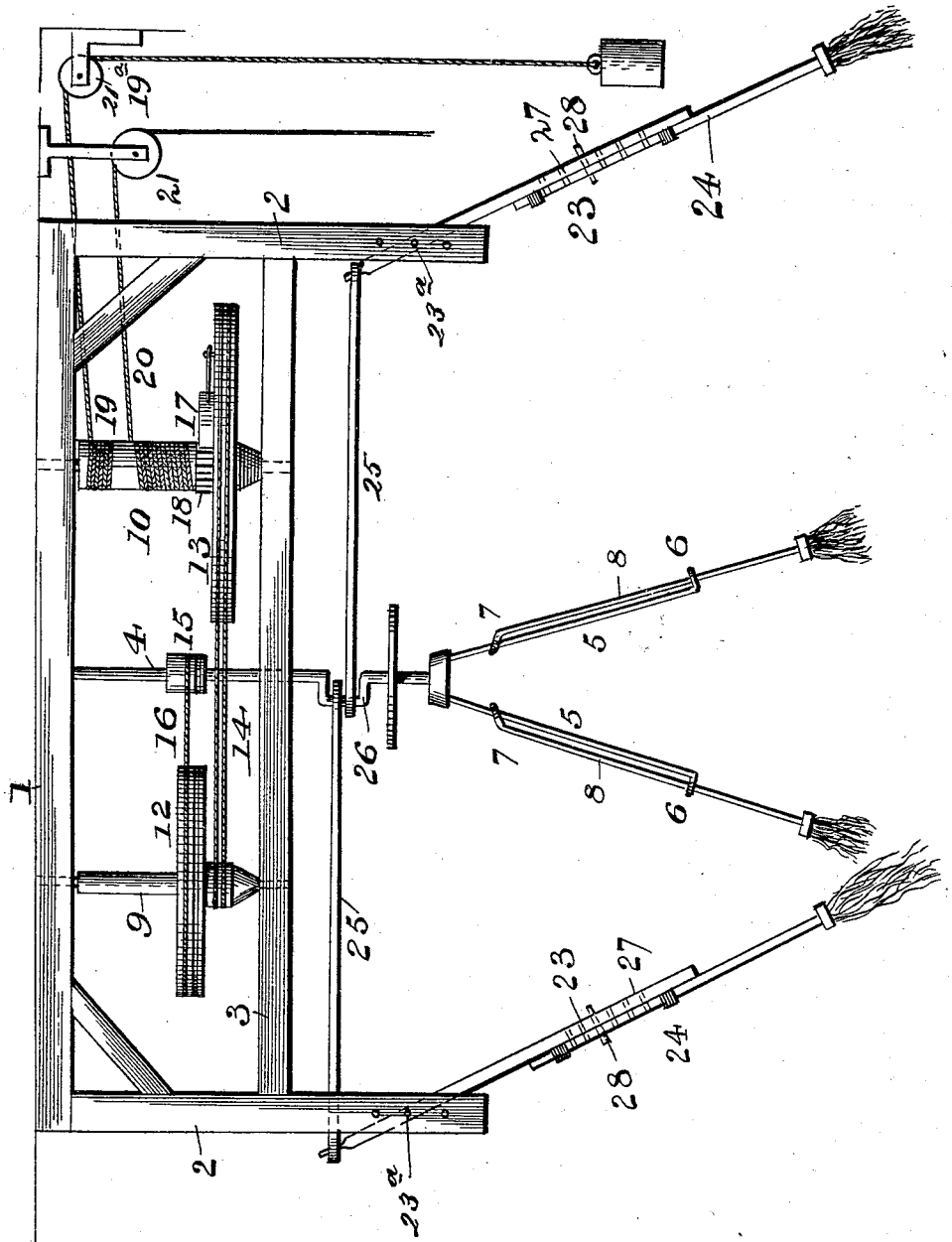
(No Model.)

M. V. FITZ WATER.

ROTARY FLY FAN.

No. 492,596. Patented Feb. 28, 1893.



WITNESSES:
F. L. Ourand.
W. L. Coombs

INVENTOR:
Marshall V. Fitz Water,
by Louis Dagger & Co.
Attorneys

UNITED STATES PATENT OFFICE.

MARSHALL VAUGHT FITZ WATER, OF CROSS ANCHOR, TENNESSEE, ASSIGNOR OF ONE-HALF TO MARION W. GASS, OF SAME PLACE.

ROTARY FLY-FAN.

SPECIFICATION forming part of Letters Patent No. 492,596, dated February 28, 1893.

Application filed October 3, 1892. Serial No. 447,657. (No model.)

To all whom it may concern:

Be it known that I, MARSHALL VAUGHT FITZ WATER, a citizen of the United States, and a resident of Cross Anchor, in the county of Greene and State of Tennessee, have invented certain new and useful Improvements in Rotary Fly-Fans; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawing, which forms a part of this specification.

My invention relates to improvements in rotary fans for use in dining rooms for brushing flies from a table, and which will also be found very useful for ventilating rooms generally, by causing a free circulation of the air therein.

The invention consists in the novel construction and combination of parts hereinafter fully described and claimed.

In the accompanying drawing, the figure represents an elevation of a rotary fan or ventilating device constructed in accordance with my invention.

In the said drawing, the reference numeral 1 designates a board or strip of wood or other suitable material, provided with downwardly depending arms 2, 2, connected together by a horizontal bar 3, the whole forming a frame, adapted to be secured to the ceiling of a room and which carries the working parts of my device.

Journaled in the board 1 is a downwardly depending rod 4, which also passes through an aperture in the bar 3. The lower end of this rod is provided with outwardly inclined arms 5, having loops 6, with which engage similar loops 7, of arms 8, by which the latter are adjustable upon the former. The free ends of arms 8 are provided with strips of paper, cloth or other material, which serve as brushes to drive away flies and other insects when put in motion.

Journaled in the board 1 and bar 3, are two rotatable shafts 9 and 10, provided with pulleys or wheels 12 and 13, which are connected together by belts or cords 14. The pulley 12 is fast on its shaft and is connected with a small pulley 15, on rod 4, by means of a belt or cord 16. The pulley 13 is loose on its shaft 10, and is provided with a spring-pawl 17, which engages with ratchet teeth 18, on the shaft 10, the construction being such that when said shaft is rotated in one direction, the pulley will rotate with it, but when moved in the opposite direction, the pulley will remain stationary.

Secured to the shaft 10 are two ropes or cords, 19 and 20, so connected therewith that when said shaft is rotated one will be wound thereon while the other is unwound. These ropes pass over small pulleys or sheaves 21, and one of them 19^a, is provided with a weight, and I term it the operating rope. The other I term the winding rope.

The operation is as follows: When the device is in place, the operating rope or cord is wound upon the shaft 10 and the weight elevated. As the weight descends, it will cause the shaft to rotate, and a rotary movement to be imparted to the rod 4, through the medium of the belts and pulleys. As the weight descends, the winding rope is wound upon the shaft in the opposite direction to the operating rope, so that when the weight has run down it can be elevated by pulling upon the winding cord, which, as it unwinds, will rotate the drum in the opposite direction and wind up the operating cord or rope. When the winding rope or cord is pulled, the shaft will rotate without moving the pulley thereon, as the pawl will ride over the ratchet teeth 18, but when rotated in the opposite or reverse direction by the weight, the pawl will engage with said teeth, so as to cause the pulley to move with the shaft.

For the purpose of increasing the efficiency of the device, I employ, in conjunction with the central rotating fans, swinging fans, at each end, which are constructed as follows: The numerals 23, 23, denote arms which are pivoted on pins 23^a near the lower ends of the stationary depending arms or end-pieces 2, so as to have a free swinging or oscillating motion, forward and back. To the lower end of each of these swinging arms is attached an extension rod 24, and these extensions are provided at their lower ends with strips of paper, or cloth, or brushes; and at their upper ends swinging arms 23 are connected with

inwardly extending pitmen 25, 25, connected with a crank 26, on the rotatable rod 4. The rods or bars 23 are connected with their extensions 24, by means of the holes or apertures 27, and pins 28, so that they may be adjusted vertically, to suit different heights of rooms or other requirements. The operation of these end fans will be readily understood. As the rod 4 rotates, the crank thereon will cause the pitman to be reciprocated and a swinging motion to be imparted to the said fans or brushes.

Having thus described my invention, what I claim is—

The combination of the stationary frame or bearing having depending arms at each end, the depending rotary shaft provided with a crank and with diverging extensible arms or brush-holders at its lower end, the described mechanism for revolving said shaft, the extensible arms or brush-holders pivoted in the depending end-pieces of the frame, and the pitman connecting the free upper ends of said extensible brush-holders with the crank of the central rotary shaft, substantially as and for the purpose herein shown and described.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

MARSHALL VAUGHT FITZ WATER.

Witnesses:
J. F. FRY,
W. H. SMITH.