No. 713,622. Patented Nov. 18, 1902.

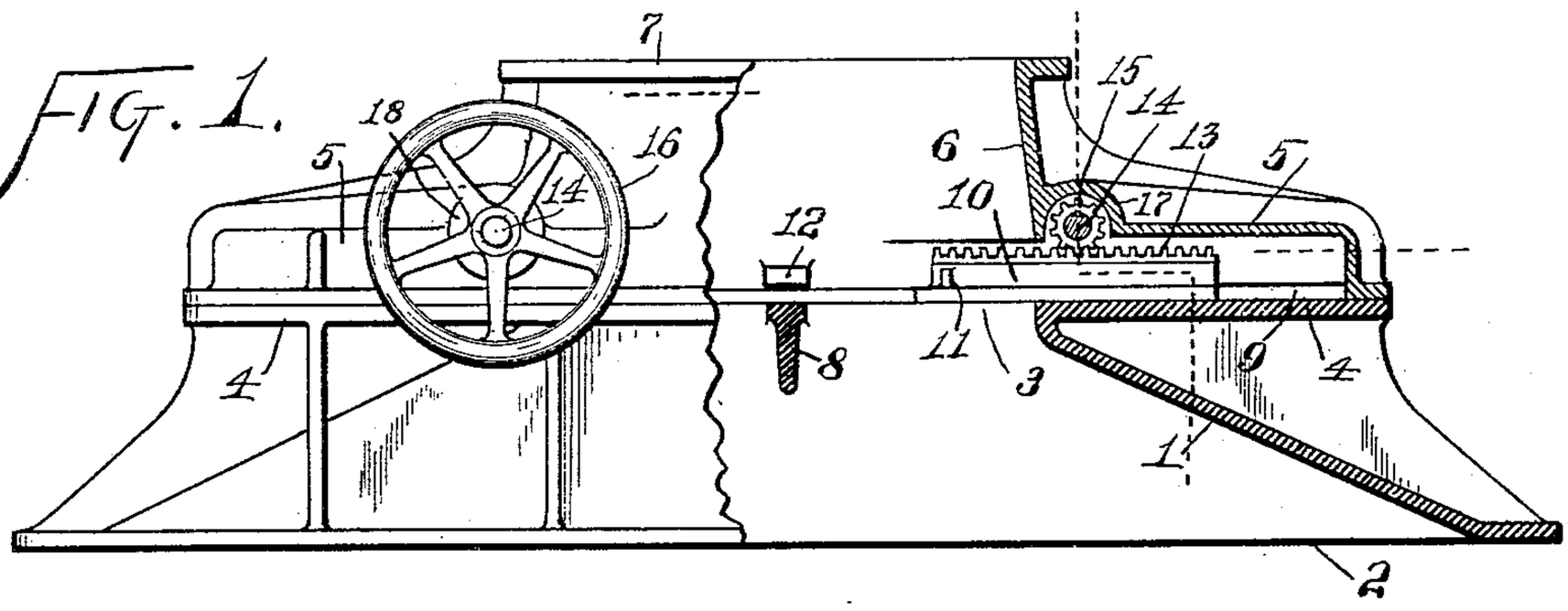
R. C. ENYART.

BLOWER OUTLET.

(Application filed July 5, 1902.)

(No Model.)

FIG. 1.



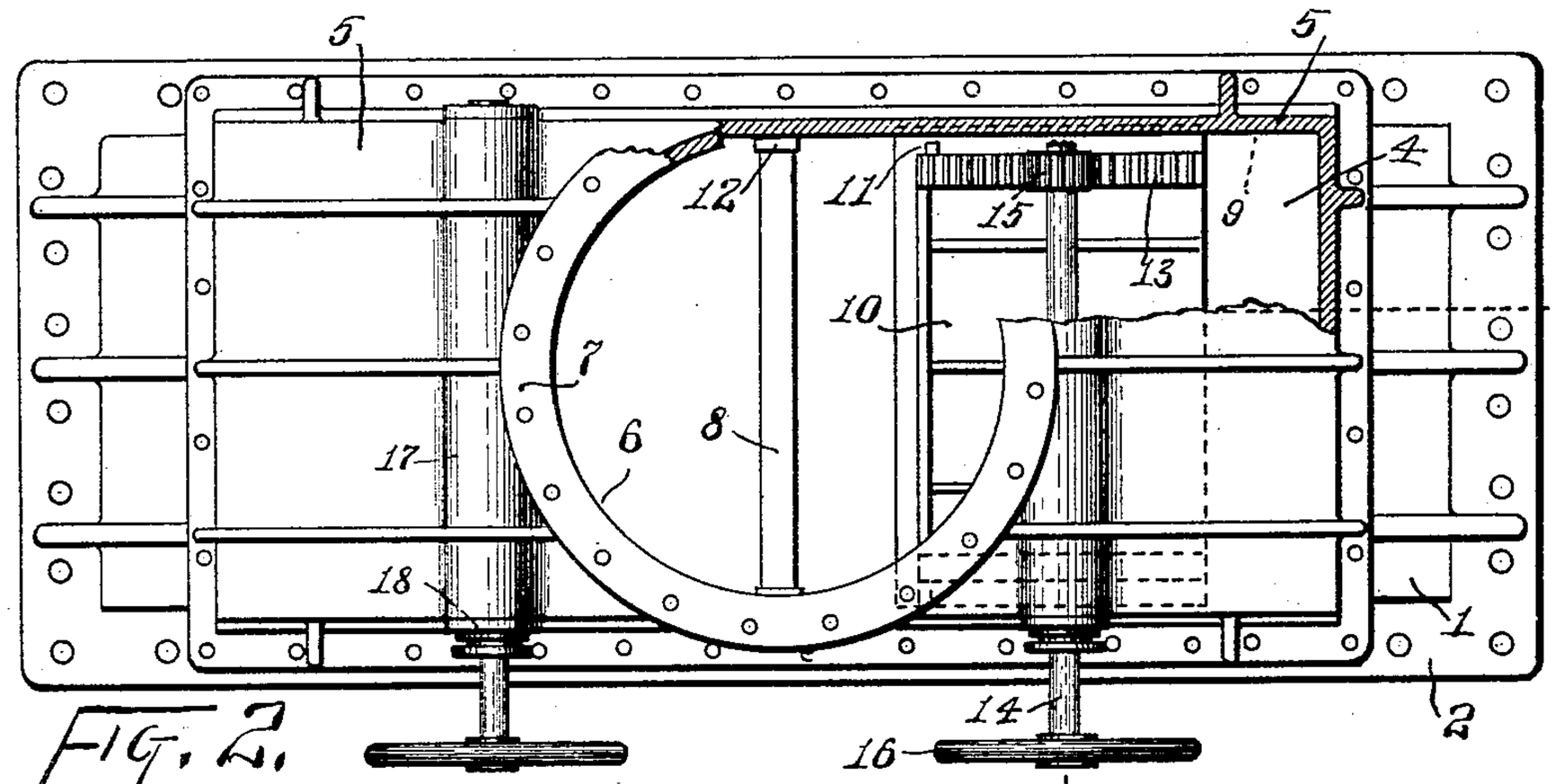


FIG. 2.

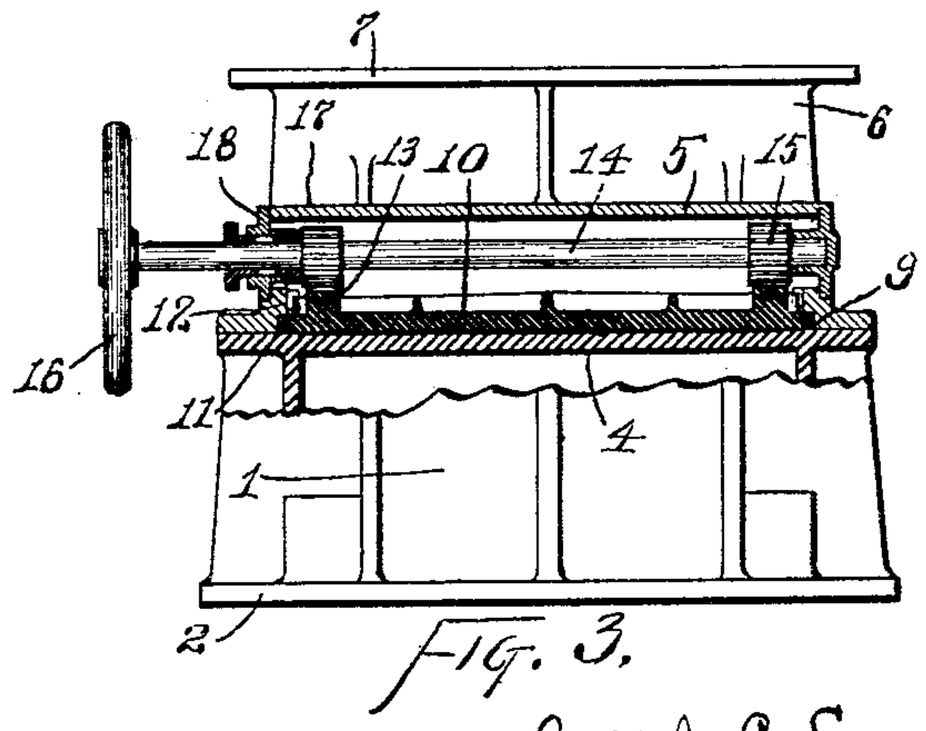


FIG. 3.

Witnesses:
E. R. Shipley.
M. S. Belden.

Ralph C. Enyart Inventor
by James W. See
Attorney

UNITED STATES PATENT OFFICE.

RALPH C. ENYART, OF CONNERSVILLE, INDIANA, ASSIGNOR TO THE P. H. & F. M. ROOTS COMPANY, OF CONNERSVILLE, INDIANA.

BLOWER-OUTLET.

SPECIFICATION forming part of Letters Patent No. 713,622, dated November 18, 1902.

Application filed July 5, 1902. Serial No. 114,393. (No model.)

To all whom it may concern:

Be it known that I, RALPH C. ENYART, a citizen of the United States, residing at Connersville, Fayette county, Indiana, have invented certain new and useful Improvements in Blower-Outlets, of which the following is a specification.

This invention pertains to improvements in the construction of the blast-outlets for rotary blowers; and the invention will be readily understood from the following description, taken in connection with the accompanying drawings, in which—

Figure 1 is a side elevation, part vertical longitudinal section, of my improved blower-outlet; Fig. 2, a plan of the same, part horizontal section; and Fig. 3, an end elevation of the same, part vertical transverse section.

In the drawings, 1 indicates the roof-piece of an ordinary rotary blower, this roof-piece having an upward convergence from its ends toward a central outlet; 2, the base of this roof-piece, the same being flanged for bolting to the usual blower-casing; 3, the central outlet through the top of the roof-piece; 4, table-like projections of the roof-piece endwise in each direction from the outlet 3, the entire upper surface of the roof-piece being on a common level; 5, an inwardly-open box-like cover secured over each of the extensions 4; 6, a pipe-collar forming an upward prolongation of the outlet 3 of the roof-piece, this pipe-collar and the covers 5 being formed in a solid structure secured to the top of the roof-piece; 7, a flange at the top of the pipe-collar for the reception of the blast-pipe; 8, a bridge-tree extending diametrically across outlet 3 of the roof-piece transverse to the general length of the structure; 9, guide-grooves formed in the bases of the side walls of covers 5; 10, gate-halves of rectangular plan resting upon the extensions 4 and having their side edges engaging the guide-grooves 9, the length of each gate-half being such that it will reach from the center of bridge-tree 8 to the inner extremity of its appropriate table extension 4; 11, lugs projecting from the sides of the gate-halves near their inner ends; 12, stop-lugs projecting inwardly from the base of the side walls of pipe-collar 6 in position to be engaged by lugs 11 when the gate-halves are moved inwardly, so as to meet and center over the bridge-tree 8; 13, racks formed upon or secured to the upper surface of the gate-halves near their side extremities; 14, shafts journaled in covers 5 and inclosed thereby, there being one shaft extending over each of the gate-halves near the inner extremities of the covers 5; 15, pinions fast on these shafts and engaging the racks on the gate-halves; 16, hand-wheels on outwardly-projecting ends of the shafts; 17, tube-like housings formed in covers 5 at the shafts and having bores whose diameters are in excess of that of the pinions, these housings being open full size at their front ends and preferably at both ends, as shown, and 18 bonnets closing the ends of these housings and forming bearings for the shafts, the bonnets at the hand-wheel ends of the shafts being provided with stuffing-boxes.

The outlet, it will be observed, is formed of a substructure and a superstructure separably united. When the gate is fully open, then both gate-halves are back within the covers 5, and the outflow of air is restricted only by the size of the opening through the pipe-collar. Either gate-half may be moved inwardly to any proper extent, or both gate-halves may be moved inwardly, and an entire closure of the outlet may be effected by moving both gate-halves to their inward limit, at which point they meet and rest upon bridge-tree 8, the coaction of stop-lug 12 and lugs 11 insuring that the meeting-point of the two gate-halves will be over the bridge-tree.

By removing bonnets 18 the shafts and their pinions can be entirely withdrawn from the structure for inspection or repair, and the removal of the bonnets results in fairly liberal openings for the inspection of the interior of the covers.

I claim as my invention—

In a blower-outlet, the combination, substantially as set forth, of a converging roof-piece adapted to be secured to a blower-casing and having at its top a central opening flanked by endwise table-like extensions, a pipe-collar secured to the top of the roof-piece and having box-like ex-

tensions forming covers over the table-like extensions of the roof-piece, gate-halves disposed upon the roof-piece within said covers and adapted to meet and close the opening through the roof-piece, a bridge-tree crossing the opening of the roof-piece at the meeting-point of the gate-halves, racks upon the gate-halves, shafts journaled in the covers, pinions on the shafts, and stops to limit the inward movement of the gate-halves.

RALPH C. ENYART.

Witnesses:
JACOB HASSLER,
J. M. SHADE.