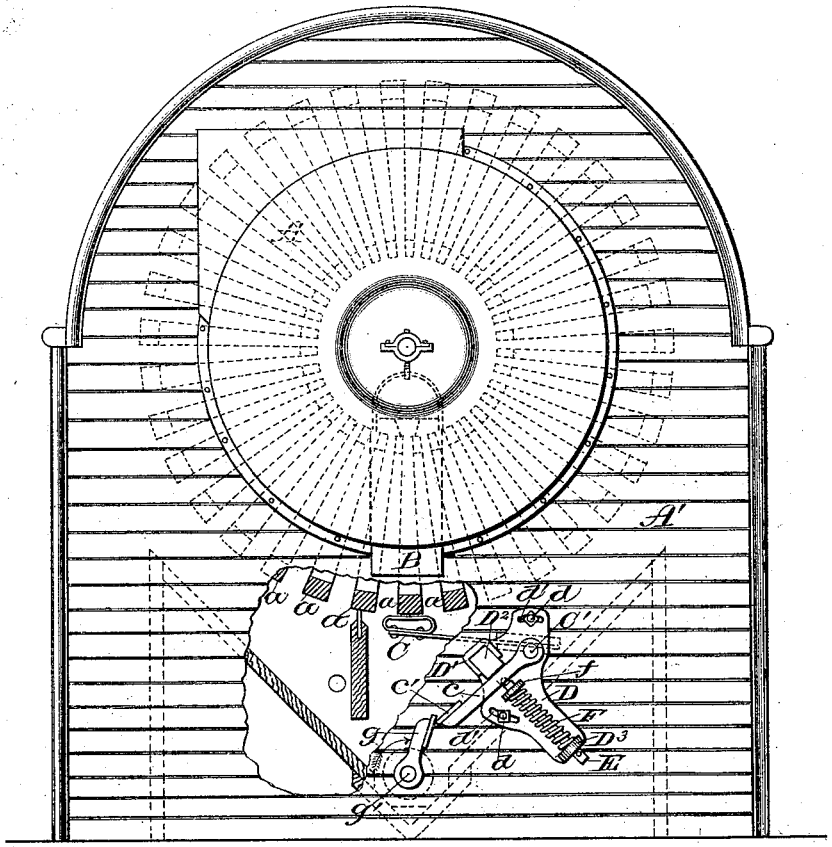
(No Model.)

W. RICHARDSON.

DUST COLLECTOR.

No. 343,400. Patented June 8, 1886.



Witnesses:
E. G. Sonus
R. Platz

Inventor:
William Richardson
By Stout & Underwood
Attorneys.

UNITED STATES PATENT OFFICE.

WILLIAM RICHARDSON, OF MILWAUKEE, WISCONSIN, ASSIGNOR TO THE MILWAUKEE DUST COLLECTOR MANUFACTURING COMPANY, OF SAME PLACE.

DUST-COLLECTOR.

SPECIFICATION forming part of Letters Patent No. 343,400, dated June 8, 1886.

Application filed February 27, 1885. Serial No. 157,175. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM RICHARDSON, of Milwaukee, in the county of Milwaukee and in the State of Wisconsin, have invented certain new and useful Improvements in Dust-Collectors; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates to dust-collectors, and will be fully described hereinafter.

The drawing represents an end view of a dust-collector embodying my invention.

This invention is designed as an improvement on the well-known Prinz dust-collector, in which there is a sectional revolving balloon operated intermittently, and a fan exhausting through it, as well as a knocker for dislodging the dust from each section successively.

A is the balloon; B, is what is called the "back-draft tube," and *a a a a* are sections of the balloon.

C is a knocker, the handle of which is secured to a shaft, C′, that extends through the machine under the balloon and parallel with it, and the outer end of this shaft C′ has keyed onto it a lever, *c*, that lies at an acute angle to the handle of the knocker C.

D is a casting that lies up against the housing A′ of the collector, and is secured thereto by bolts *d* that pass through slots *d′* to receive suitable nuts, the shaft C′ also passing through the casting.

D′ is a housing that is formed on the upper portion of the casting to receive a spring, D^2, and D^3 is a perforated lug on the lower face of the casting D to receive a plunger, E, which has fixed on it collar *f*, that is separated from the lug D^3 by a spring, F. This upper end of the plunger E is rounded and fits in a cavity in the under side of lever *c*, and as this plunger E is held up by spring F acting on its collar it clamps the lever *c* tightly up against the spring D. This lever *c* has a re-enforce, *c′*, on the upper face of its lower end to receive a like re-enforced face of an arm, *g*, on the conveyer-shaft *g′*, which arm *g*, at every revolution of the conveyer-shaft, strikes lever *c*, and by depressing its lower end partly revolves the shaft C′ against the force of spring F, correspondingly depressing the knocker C, and as the arm *g* clears the lever *c* the spring F will suddenly throw lever *c* up again and cause the knocker to strike the section immediately above it, after which the knocker will be held back by the spring D^2 so as not to interfere with the revolution of the balloon until the lever *c* is again engaged by arm *g*.

The casting may be adjusted on the bolts *d* after the nuts have been loosened, and then secured in place by tightening the nuts.

As in the Prinz machine, above named, the air is exhausted from the casing by a fan through the center of the balloon.

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

1. In a dust-collector, the shaft C′, provided with the knocker and arm *c*, means for operating the same, the casting, and the spring-controlled plunger, in combination, as set forth.

2. The casting D, the plunger and springs, in combination with the knocker and its shaft, lever *c*, and the arm *g* and its shaft, as set forth.

In testimony that I claim the foregoing I have hereunto set my hand, at Milwaukee, in the county of Milwaukee and State of Wisconsin, in the presence of two witnesses.

WILLIAM RICHARDSON.

Witnesses:

S. S. STOUT,

H. G. UNDERWOOD.