

S. C. COX.
DUST TRAP OR COLLECTOR.
APPLICATION FILED JUNE 25, 1907.

983,352.

Patented Feb. 7, 1911.

Fig. 1.

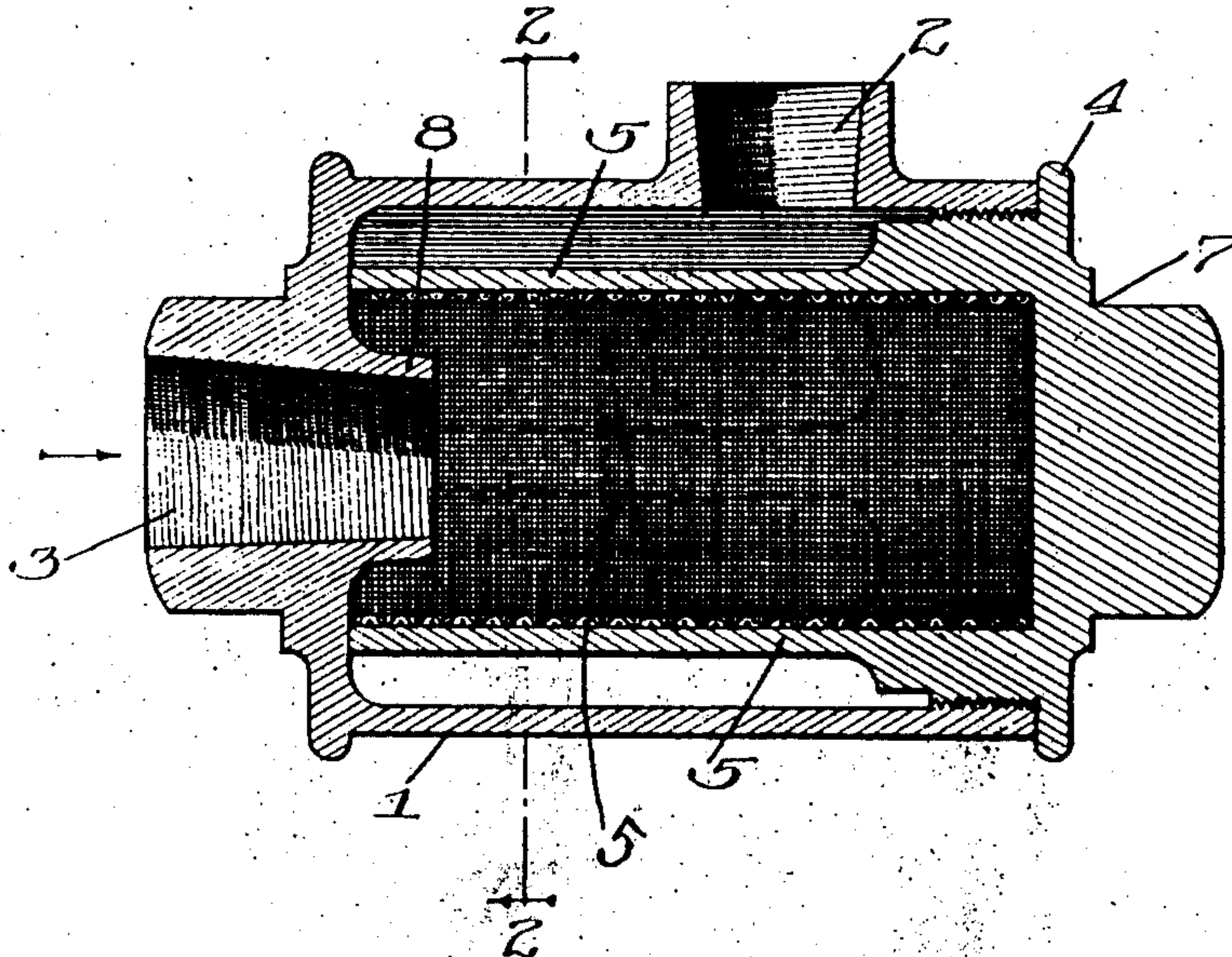
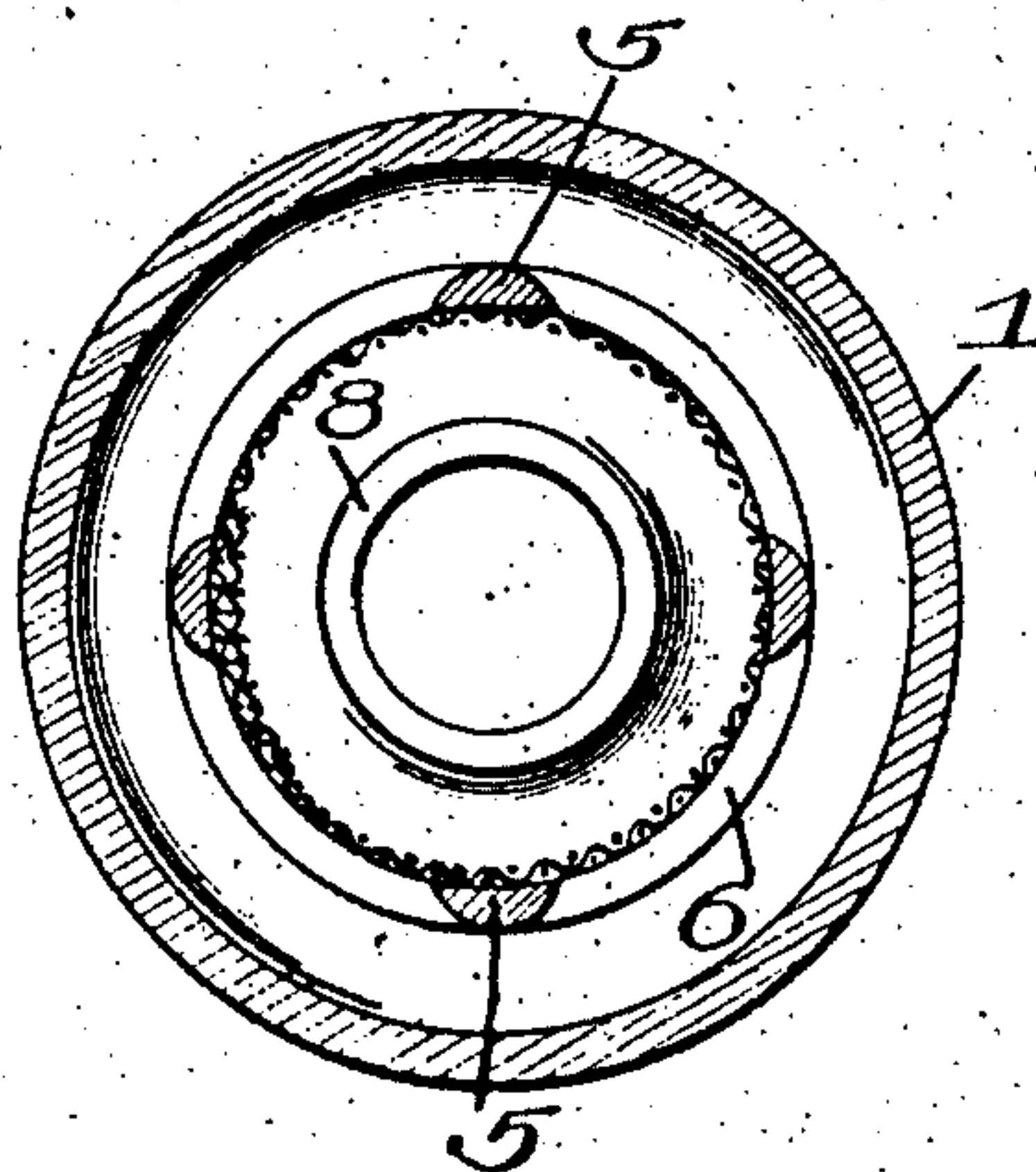


Fig. 2.



Witnesses:
H. D. Perry
G. V. Domarus Jr.

Inventor:
S. C. Cox
by Edward H. Hoffmann
Att'y

UNITED STATES PATENT OFFICE.

SANDFORD C. COX, OF CHICAGO, ILLINOIS, ASSIGNOR TO COX MULTI-MAILER COMPANY,
OF CHICAGO, ILLINOIS, A CORPORATION OF MAINE.

DUST TRAP OR COLLECTOR.

983,352.

Specification of Letters Patent.

Patented Feb. 7, 1911.

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To all whom it may concern:

Be it known that I, SANDFORD C. COX, a citizen of the United States, residing at Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Dust Traps or Collectors, of which the following is a full, clear, and exact specification.

This invention relates to dust traps or collectors more especially designed for use in pneumatic apparatus for preventing dust and small particles of matter from entering the intake of an apparatus and eventually passing into the pump or exhauster; and it has for its primary object to provide an improved, simple and efficient form of device for this purpose.

With a view to the attainment of these ends and the accomplishment of certain other objects which will hereinafter appear, the invention consists in the features of novelty which will now be described with reference to the accompanying drawings, and then more particularly pointed out in the claims.

Figure 1 is a longitudinal sectional view of the device; Fig. 2 is a cross-section thereof on the line 2—2, Fig. 1.

The numeral 1 designates a shell or casing, which is provided at one side with an outlet port 2, adapted for the connection of a pipe or passage leading to the pump or exhauster, not necessary to illustrate. In one end of this shell or casing is formed an inlet port 3, adapted for the connection of a pipe or passage leading from the apparatus which the pump or exhauster is designed to operate, such for example as one or more sockets in a paper feeding machine intended for lifting the sheets of paper, or any other device where the accumulation of lint, dust, or small particles of matter is liable to occur. The end of the shell 1 opposite the intake 3 is preferably screw threaded and into it is inserted a screw threaded head 4, which is provided with a plurality of longitudinal arms 5 arranged in a circular series and extending longitudinally of the shell 1 a distance substantially equal to the interior length of the shell. These arms, however, are situated a considerable distance from the wall of the shell and they are spaced with respect to each other. It will also be seen that their extremities where they terminate contiguous to the in-

ner end of the shell are formed with a ring 6. Into the space encircled by this circular series of arms 5 is inserted a cylinder 7, composed of wire gauze netting or other like screen, the same being a piece of material of this character coiled and inserted through the ring 6 with its edges overlapped. The cylindrical screen 7 thus constituted is coterminous in length with the combined length of the arms 5 and ring 6, and is also sufficiently long to project into the head 4, the opposite end wall of the shell 1 being preferably formed with a boss 8 around the intake 3, which extends into the ring 6 to insure the entry of the dust or particles into the cylinder 7 instead of passing around the end of the cylinder.

With the device thus constructed, it will be seen that the air which enters the intake 3 will carry the dust and small particles of material into the cylinder 7 on its way to the outlet 2, and such dust, &c., will be trapped by the screen, and after sufficient is accumulated to warrant the trouble, the head 4 may be unscrewed and removed with the cylindrical screen containing the accumulated matter, which may be readily dumped out and the screen cleaned, or another piece of gauze inserted.

In order that the invention might be understood by those skilled in the art, the details of an embodiment thereof have been thus specifically described, but

What I claim as new and desire to secure by Letters Patent is:

1. In a device for the purpose described, the combination of a shell having an inlet and an outlet, said inlet being surrounded by an inwardly extending boss, and a removable head secured in the end of the shell opposite said boss, a hollow screen removable with the head, and means supported by the head for supporting and bracing the screen at intervals throughout substantially its length, said boss projecting into the screen through one end, the other end of the screen being closed to the outlet by the head.

2. In a device for the purpose described the combination of a shell having an inlet and an outlet, said inlet being surrounded by an inwardly extending boss, a removable head secured in the end of the shell opposite said boss and having a plurality of arms spaced around said boss and a hollow screen

embraced by said arms and head, one end of the screen surrounding said boss and the other end being closed to the outlet by the head.

- 5 3. In a device for the purpose described, the combination of a shell having an inlet and an outlet, said inlet being surrounded with a boss extending into the shell, a removable head secured to the end of the shell
10 opposite the boss, and a hollow screen, one end of which is removably supported by the head and the other end surrounding the boss and extending beyond the extremity

thereof, said head being provided with spaced-arms surrounding and extending 15 longitudinally of the screen and terminating substantially flush with the end of the screen.

In testimony whereof I have signed my name to this specification, in the presence of 20 two subscribing witnesses, on this 16th day of May, A. D. 1907.

SANDFORD C. COX.

Witnesses:

JOHN HUNEKE,
J. TOMLINSON.