

(No Model.)

J. H. FREDERICKS.
SIFTER.

No. 401,548.

Patented Apr. 16, 1889.

Fig. 1.

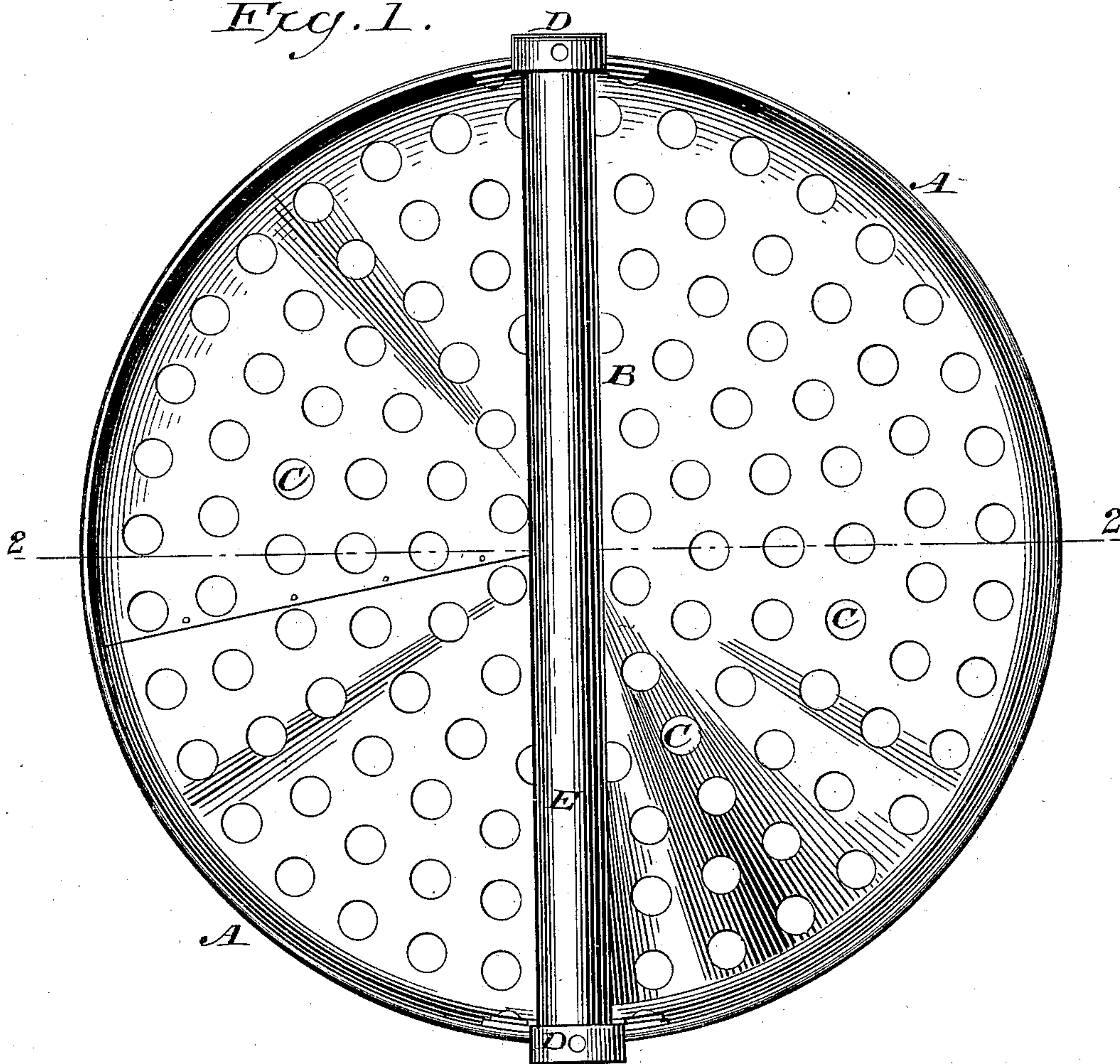
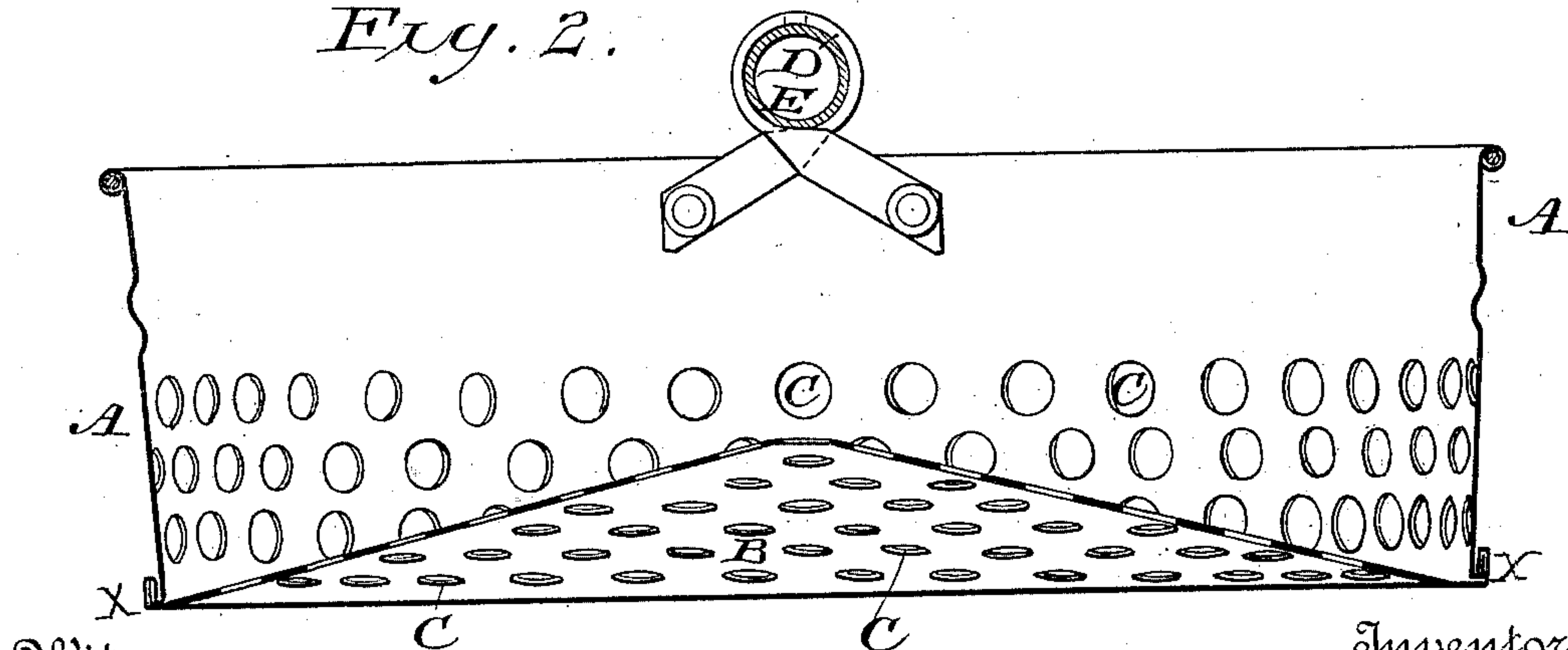


Fig. 2.



Witnesses.

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SIFTER.

SPECIFICATION forming part of Letters Patent No. 401,548, dated April 16, 1889.

Application filed January 17, 1889. Serial No. 296,628. (No model.)

To all whom it may concern:

Be it known that I, JOHN HARVEY FREDERICKS, of Lock Haven, in the county of Clinton and State of Pennsylvania, have invented a certain new and Improved Sifter, of which the following is a specification, reference being had to the accompanying drawings.

The object of my invention is to provide a strong, light, cheap, durable sifter, which may be used for sifting ashes, gravel, sand, &c., the body of which may be made by machinery wholly of two pieces of perforated sheet metal. I prefer to use galvanized iron.

Figure 1 is a plan view of my invention, and Fig. 2 a section on the line 2 2 of Fig. 1.

Referring to the letters on the drawings, A indicates a single perforated band of sheet metal bent and united at its ends to form a flat ring constituting the sides of the sifter. Before bending and forming the ring a wire, *a*, is preferably infolded in its upper edge in the usual way, by machinery, as a stiffener. The bottom B is also made of a single piece of perforated sheet metal, which is first cut into a circular disk and is then slitted from the circumference to the center. The central part of the disk is then pressed upward and the edges of the slit are overlapped and fastened, preferably, by rivets *c*, which can rapidly be applied by riveting-tools. By this means the bottom is still kept circular in form and assumes a convex or conical shape, as shown in the drawings. Formed in this way it is very strong, and requires no central support to preserve its convex form.

C indicates perforations (which may be of any desired size or number) in the sides and bottom of the sifter, made by punching or any other well-known means. The bottom and sides are joined by infolding together by machinery, as shown at X.

D D are handles attached to the sides of the sifter, preferably by rivets, by which it may be lifted, or through both of which a rod may be inserted and the sifter used at arms-length. When necessary, as a protection against heat, I provide the metallic tube E, extending over the top of the sifter and secured

to each of the handles D D. A wooden rod inserted in this tube E will be amply protected. By making the bottom convex it is not only greatly strengthened and prevented from sagging, but it tends to deliver the contents of the sifter toward the sides, where they can escape through the side perforations, which greatly enlarge the sifting surface and increase the capacity of the sifter for its work. I thus produce a sifter, the body of which is composed of two pieces of perforated sheet metal and can be wholly made by machinery, so that it is exceedingly cheap, as well as strong, light, and durable.

I am aware that a sifter with a convex bottom has been made. I am also aware that the sides of a sifter have been perforated; but I am not aware that a sifter with a convex bottom and perforated sides has been made previously to mine, or that a sifter with a convex bottom and composed of two pieces of perforated sheet metal capable of being united by machinery has before been designed. A sifter with perforated sides is of little use unless its bottom be made convex, so that the contents of the sifter will tend toward the sides to escape there, as they do in use of my device. Where the bottom is not convex it is sure in practice soon to become concave by sagging, and even when flat the contents of the sifter do not sufficiently tend toward the sides in use to escape satisfactorily through side openings.

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

A sifter whose sides are composed of a single perforated annular band of sheet metal, combined with a perforated sheet-metal disk slitted and overlapped, so as to form a circular convex bottom, the disk and annular band being joined by infolding together at X, substantially as set forth.

In testimony of all which I have hereunto subscribed my name.

JOHN HARVEY FREDERICKS.

Witnesses:

JOHN W. HARRIS,
T. C. CARSON.