S. C. Maine,

Flour Sieve.

No. 48,572. Patented July 4, 1865.

Fig. 1.

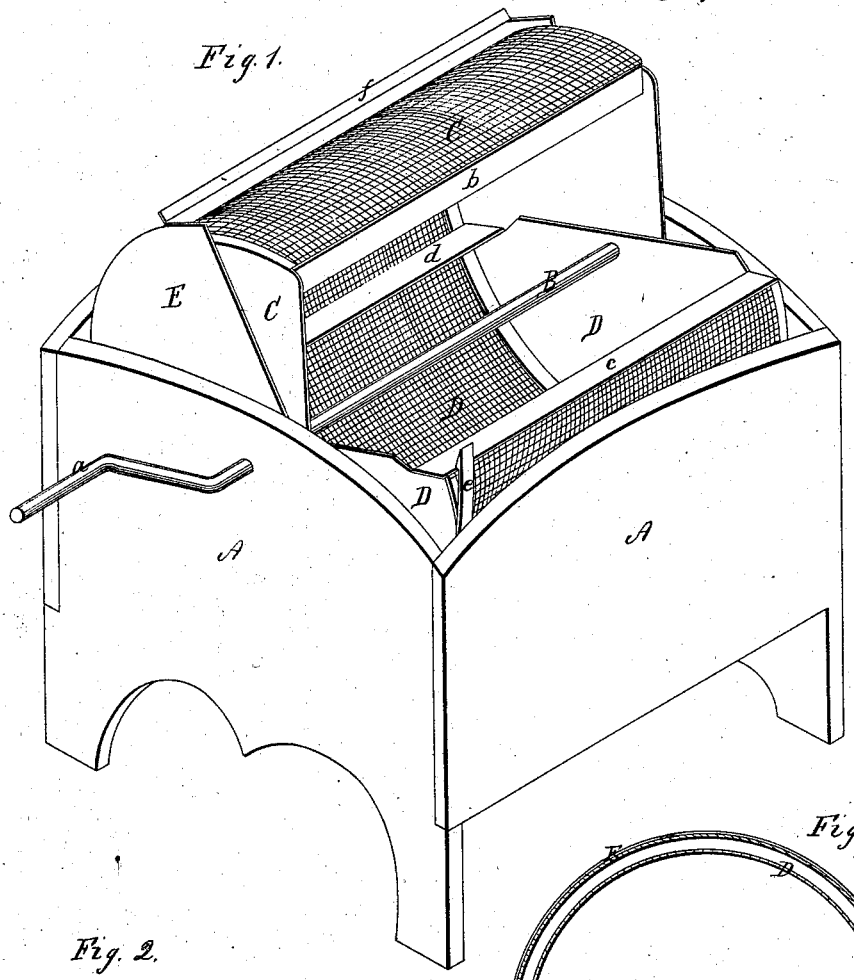


Fig. 2.

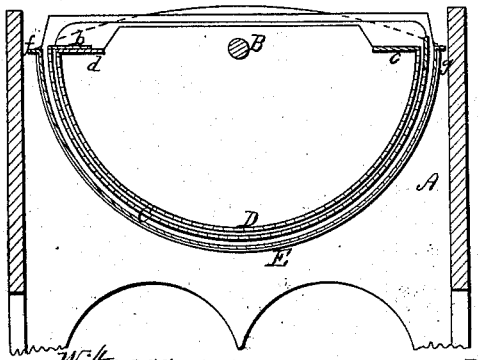
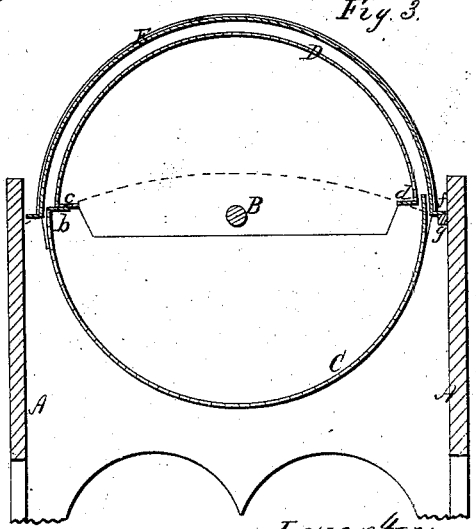


Fig. 3.



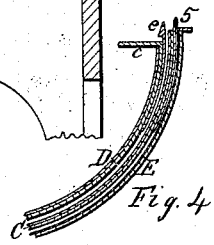


Fig. 4.

Witnesses;
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UNITED STATES PATENT OFFICE.

SEBEUS C. MAINE, OF BOSTON, MASSACHUSETTS.

IMPROVED FLOUR-SIFTER.

Specification forming part of Letters Patent No. **48,572**, dated July 4, 1865.

To all whom it may concern:

Be it known that I, SEBEUS C. MAINE, of Boston, in the county of Suffolk and State of Massachusetts, have invented an Improved Sifter for Sifting Flour and other Articles, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a perspective view of my improved sifter. Fig. 2 is a transverse section through the same when ready to receive the article to be sifted. Fig. 3 is a transverse section through the same, showing the position of the parts when the sifting is being performed; Fig. 4, detail to be referred to.

That class of flour-sifters now in general use, where the flour is rubbed over a sieve by means of a revolving or reciprocating shaft provided with beaters, rolls, or other similar devices, are objectionable, as any impurities which may be in the flour are liable to be mashed or ground up and carried through the sieve, while the sieve itself is frequently broken by nails and other hard substances being forced through it, and its meshes are also liable to be quickly clogged or filled up by the rubbing of the flour across it.

My invention has for its object to overcome these difficulties; and it consists in a sifting-cylinder composed of independent sections placed one within the other, and operated by a shaft, so that as the shaft is turned they are brought together, forming an entire cylinder, which can be readily opened to admit the article to be sifted.

To enable others skilled in the art to understand and use my invention, I will proceed to describe the manner in which I have carried it out.

In the said drawings, A is a box or frame, in suitable bearings in which is supported the shaft B, which is provided at one end with a handle, *a*. To this shaft B is secured a semi-cylinder, C, the sides of which are of wire-gauze, while the ends are formed of metal plates or other suitable material. Within this semi-cylinder C fits another semi-cylinder, D, of similar construction, but hung loosely on the shaft B, instead of being fast thereon.

b is a flange projecting inward from one of the upper edges of the cylinder C, and *c d* are similar flanges projecting inward from the upper edges of semi-cylinder D, and thus as the handle *a* is turned the section C will be raised and turned around the section D until its flange *b* strikes against the flange *c*, when it is caught and held in place by means of a spring-catch, *e*, thus forming a complete cylinder, the whole being revolved by the handle *a*. During the operation of sifting, the flanges *b c d* elevate the flour and throw it forcibly upon and through the opposite side of the cylinder, thus greatly accelerating the operation, which is performed in a thorough and effectual manner.

E is a tight semi-cylinder or cover, which is hung upon the shaft B, and fits over the semi-cylinder C, a spring, 5, Fig. 4, on which bears against the upper edge of the cover E, so as to cause it to be raised by the shaft until the edge *f* comes into contact with the stop *g*, projecting from the inside of the box A, as seen in Figs. 2 and 3; or the cover may be hung loosely on the shaft and thrown over by hand, when the shaft with the sifting-cylinder is revolved without turning the cover, which thus prevents the escape of dust. If preferred, however, the cover E may be dispensed with, the sides of the box A being raised, so as to prevent the flour or dust being thrown over them.

Instead of the sifting-cylinder being composed of two semi-cylinders it may be composed of two parts—one a larger section of a cylinder than the other—which, when put together, will form a complete cylinder. For instance, the inner section may be two-thirds of a cylinder, while that which is placed outside of it and fastened to the shaft forms one-third, or the cylinder may be composed of three or more separate sections.

The operation of the sifter is as follows: The parts being in the position represented in Fig. 2, the flour or other article to be sifted is placed in the inner section, D, when the handle *a* is turned, which raises the cover E until it strikes the stop *g*, the section C being at the same time raised until the flange *b* on its edge strikes against the flange *c* on the edge of the section D, when it is caught and the two sections held together by the spring-catch *e*, the inner section, D, being loose on the shaft B, remaining in the position seen in Fig. 2 until this takes place. The two sections are now revolved together, the flour being elevated by the flanges

b c d, and thrown against and through the opposite side of the cylinder, when it falls into a receptacle placed to receive it. As soon as the operation is completed the hand is taken off the crank *a*, when the cover E falls back into the position seen in Fig. 2, when the catch *e* is unhooked and the semi-cylinders fall back into the position shown in Fig. 2, and the sieve is ready to be operated as before.

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

1. A sifting-cylinder composed of independent sections or parts placed one within the other, and operating substantially as and for the purpose set forth.

2. In combination with the above, the cover E, operating substantially as set forth, for the purpose described.

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Witnesses:
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