

H. Locke,

Flour Siere.

N^o 48,571.

Patented July 4, 1865.

Fig. 1.

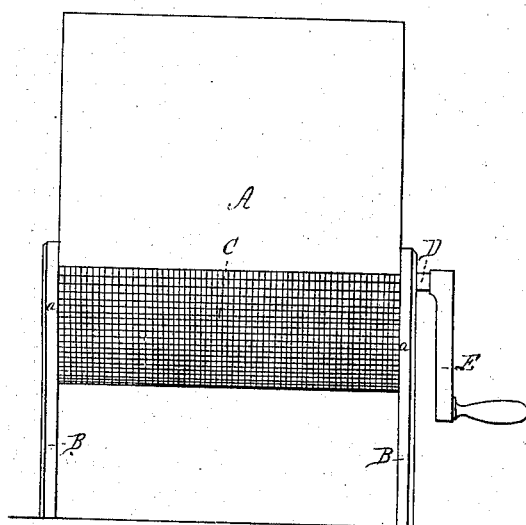


Fig. 2.

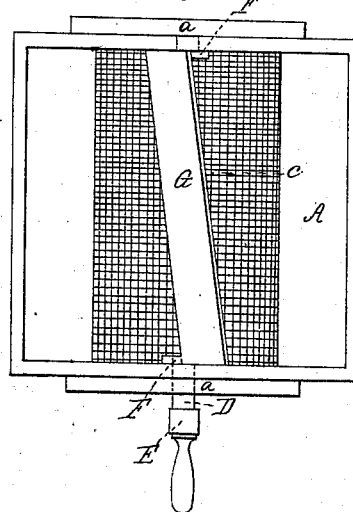
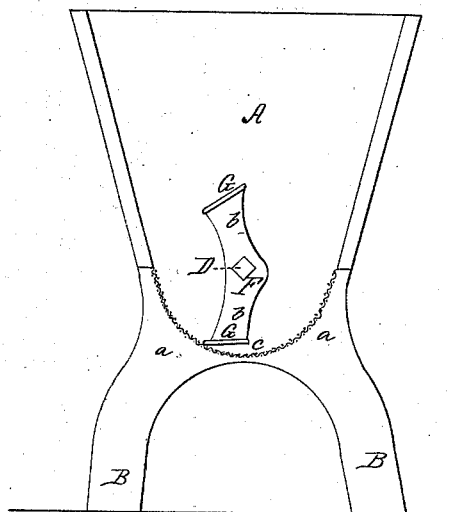


Fig. 3.



Witnesses:
W. P. Hale, Jr.
G. H. Washburn

Inventor:
Harvey Locke
by his attorney
R. H. Gay

UNITED STATES PATENT OFFICE.

HARVEY LOCKE, OF BOSTON, MASSACHUSETTS.

IMPROVED FLOUR-SIFTER.

Specification forming part of Letters Patent No. 48,571, dated July 4, 1865.

To all whom it may concern:

Be it known that I, HARVEY LOCKE, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful or Improved Machine for Sifting Flour, Squashes, &c; and I do hereby declare the same to be fully described in the following specification and represented in the accompanying drawings, of which—

Figure 1 denotes a side elevation, Fig. 2 a top view, and Fig. 3 a transverse and vertical section, of my improved machine, such section being taken through one set of its radial arms.

The nature of my invention consists in so constructing and arranging the wings or curved bars attached to the radial arms that when the driving-shaft is turned in one direction the said wings shall simply scrape the concave surface of the sieve and gently force the flour or article in such sieve through its meshes, while when the shaft is revolved in the opposite direction the said wings will operate with great power in forcing the article to be sifted through the openings of the sieve.

It is a fact well known that in sifting meal and other powdered articles but very little power is required to effect such object, while in sifting squashes, pumpkins, turnips, and some other vegetables great force is requisite to press them through the sieve.

To produce a machine which shall combine both these qualities, or be adapted to effect the sifting of both the finer and coarser articles, is the object of my invention.

In the drawings, A denotes a pyramidal box or hopper, (in which the article to be sifted is to be placed,) the same being supported upon four legs, B B B B. To the lower end of the said box a curved semi-cylindrical sieve, C, is attached, the same being as shown in Figs. 2 and 3. A driving-shaft, D, formed rectangular in transverse section, extends longitudinally through the said sieve, and has its journals supported by the leg-frames *a a*, the said shaft having a crank, E, by which, by power properly applied, it may be put in revolution.

F F' denote two metallic hubs, (arranged upon the shaft D,) from each of which two or any other suitable number of curved or radial arms, *b b*, extend, the same having the form as shown in longitudinal section in Fig. 3.

G G are two curved wings, bars, or scrapers, which are applied to the outer extremities of the arms *b b b b*, the said wings being so constructed and applied to the said arms that while the former may be revolved in one direction the front face of each of such wings shall lightly sweep in contact with the concave surface of the sieve, but while being revolved in the opposite direction the forward or front edges of the wings will stand at an angle of about forty-five degrees to the lower edges, whereby spaces or chambers will be formed, in which the article to be sifted will be crowded and pressed with great force against and through the meshes of the sieve.

It will be evident that four wings or scrapers might be used instead of two, if desirable.

By giving to the wings the spiral or curved form, as above set forth, the more tenacious matters to be sifted are better and more quickly reduced and sifted, and such matters are not so liable to adhere to the wings as if the latter were so constructed and arranged that their paths of revolution were concentric with the curved surface of the sieve.

A machine constructed in the above-described improved manner is one of great utility and value for the purpose for which it is intended, it being not only simple in construction and effective in operation, but little liable to get out of order.

I claim—

My improved sifting apparatus, having its wings or scrapers G G constructed and applied to the arms *b b b b* and so as to operate with the sieve in the manner as set forth.

HARVEY LOCKE.

Witnesses:

F. P. HALE, Jr.,
G. H. WASHBURN.