

S. V. Gifford,

Siere.

Nº 50,465.

Patented Oct. 17, 1865.

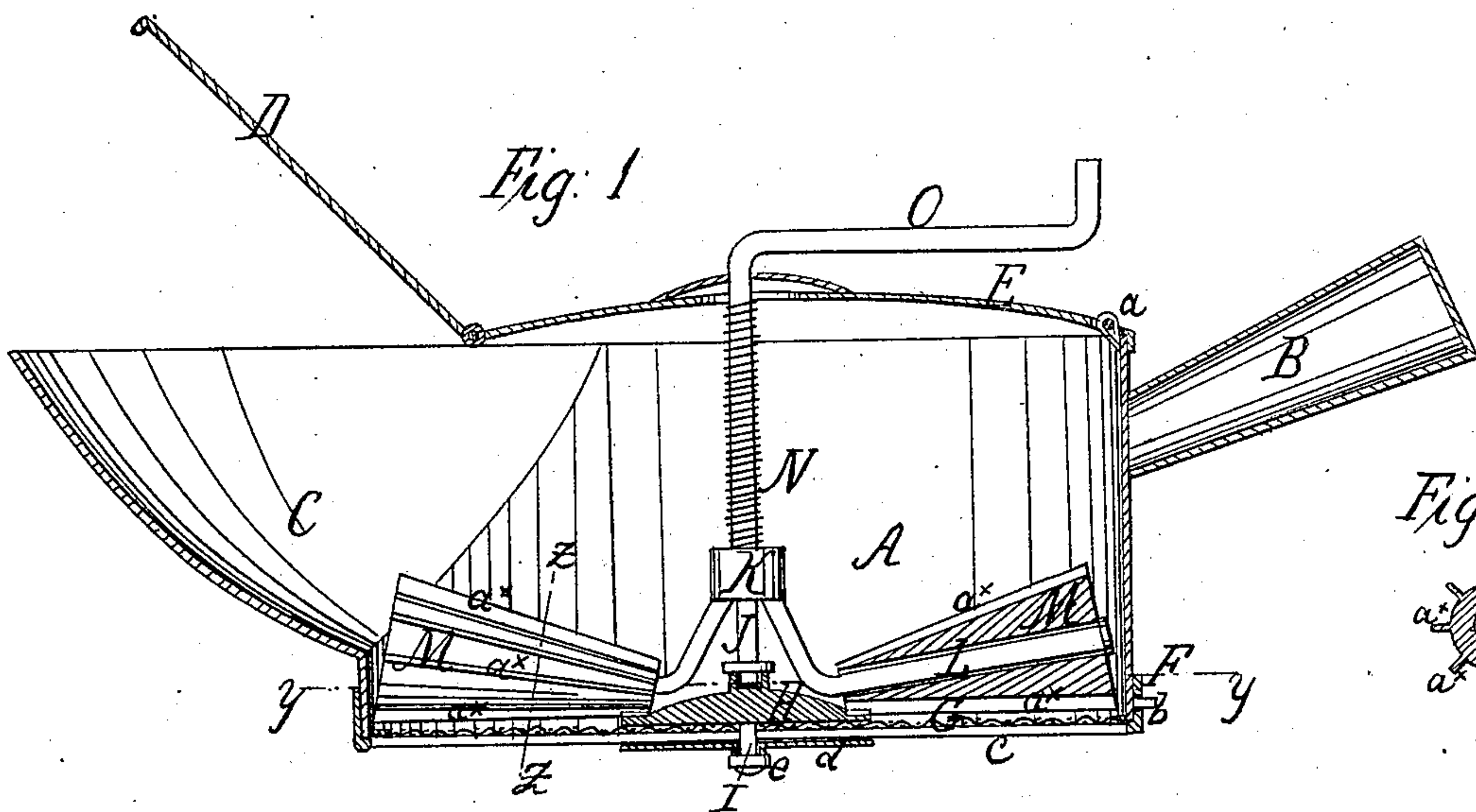
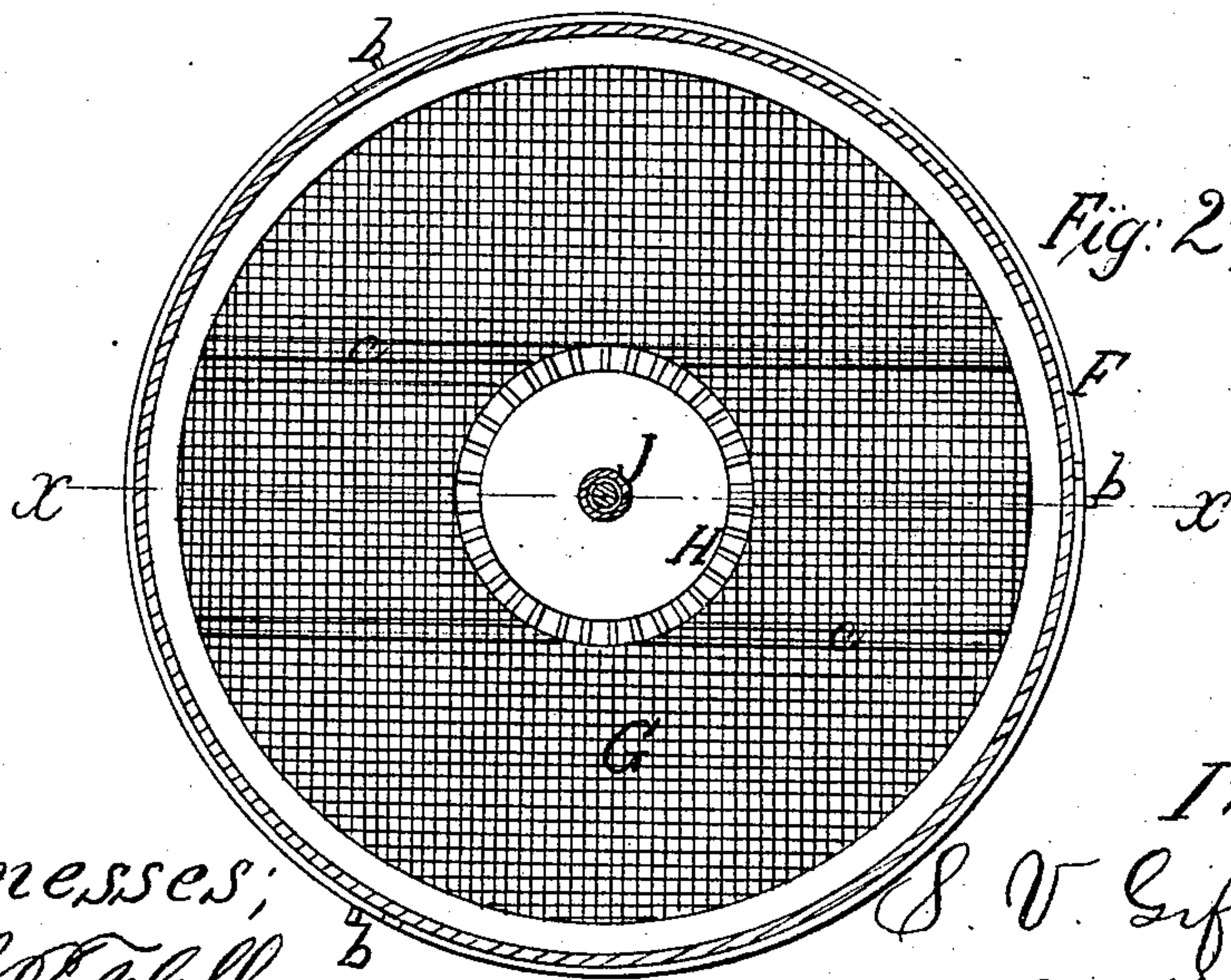


Fig. 3,



Witnesses;
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UNITED STATES PATENT OFFICE.

S. V. GIFFORD, OF HUDSON, NEW YORK.

IMPROVED SIEVE.

Specification forming part of Letters Patent No. 50,465, dated October 17, 1865.

To all whom it may concern:

Be it known that I, S. V. GIFFORD, of Hudson, in the county of Columbia and State of New York, have invented a new and Improved Sieve and Macerator; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a vertical central section of my invention, taken in the line *x x*, Fig. 2; Fig. 2, a longitudinal section of the same, taken in the line *y y*, Fig. 1; Fig. 3, a detached transverse section of one of the rollers pertaining to the same, taken in the line *z z*, Fig. 1.

Similar letters of reference indicate like parts.

This invention relates to a new and useful device for sifting and macerating substances, designed especially for family use, for sifting flour, macerating and sifting pulp for pumpkin and squash pies, and for like purposes.

The invention consists in constructing a vessel of cylindrical form provided with a handle and a scoop and with a detachable top, the bottom of said vessel being open, and having a sieve applied to it in such a manner that it may be readily detached, when necessary, and sieves of different-sized meshes used, the above parts being used in connection with rollers provided with cutters, and all arranged in such a manner as to operate very efficiently.

A represents a vessel, which may be constructed of sheet metal and of any desired size, said vessel being provided with a handle, B, and a scoop, C, the latter being provided with a jointed lid, D, and the main portion of the vessel provided with a lid, E, which may be detached at any time, any suitable fastening, *a*, being employed to secure the lid on the vessel.

F represents a rim, which is fitted on the bottom of the vessel, and is secured thereto by pins *b*, projecting from the vessel and fitting in slots in the rim. This rim may be readily applied to and detached from the vessel, and it has

two wires or rods, *c c*, attached to it, to which a circular plate, *d*, is secured.

G is a sieve, which is fitted within the rim F; and H is a tooth-wheel, which has a pendent rod, I, extending down centrally from it, said rod passing through the sieve and through the plate *d*, and having a screw-nut, *e*, upon it. By this means the wheel H is firmly retained in position, said wheel being stationary.

J represents a shaft, which passes through the center of the lid E and has its lower end stopped at the center of the wheel H. On this shaft J, near its lower end, there is secured a hub or boss, K, from which two arms, L L, project, on which arms conical rollers M M are placed loosely. These rollers are provided with longitudinal blades or cutters *a*^x, extending their whole length, the inner ends of said blades or cutters gearing into wheel H.

On the shaft J there is placed a spiral spring, N, the upper end of which bears against the under side of the lid E, and the lower end against the hub or boss K. This spring gives the necessary pressure to the rollers M M.

The upper end of the shaft J is provided with a crank, O. The blades or cutters *a*^x are not allowed to bear upon the sieve, as their outer ends work in contact with the rim *b*^x of the sieve.

The article to be operated upon is scooped into the vessel A, the lid D of the scoop being raised to admit of it, and the lid being then turned down, the crank O is turned and the shaft J rotated, the rollers M M being rotated on the arms L L and traveling around on the sieve G, forcing the substance through the sieve, pulverizing it, and also mixing or macerating some substances—those which are moist. Sieves of different-sized meshes may be adjusted in the rim F, as may be required.

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

1. The conical rollers M M, provided with the blades or cutters *a*^x, in connection with the sieve G, the rollers being arranged so as to operate with a rotary motion on an axis, and also to revolve upon the sieve, substantially as set forth.

2. The combined vessel A and scoop C, when used in connection with the pressure-rollers, as and for the purpose specified.

3. The attaching of the sieve G to the bottom of the vessel A, through the medium of a rim, F, applied to the vessel and having the wheel H attached to it, substantially as and for the purpose set forth.

4. The combination of the conical pressure-

rollers M M, vessel A, scoop C, and sieve G, all arranged substantially as and for the purpose specified.

The above specification of my invention signed by me this 8th day of September, 1865.

S. V. GIFFORD.

Witnesses:

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C. L. TOPLIFF.