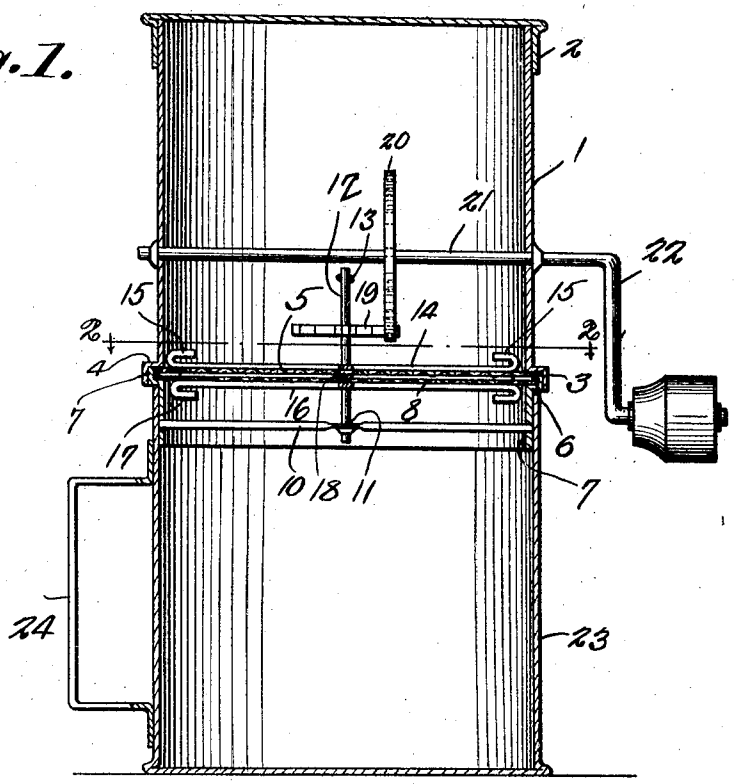
July 20, 1926. 1,593,312

A. C. SHAPPELL

BLENDER

Filed May 27, 1926

Fig. 1.



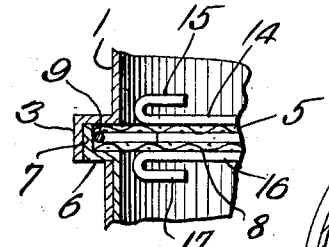


Fig. 3.

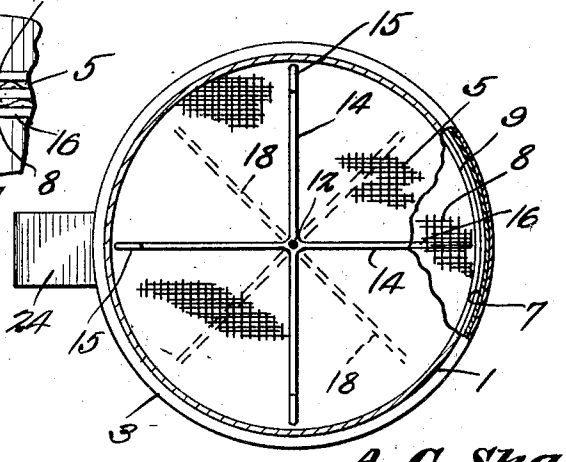


Fig. 2.

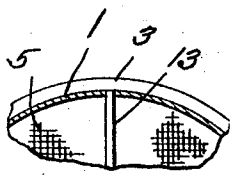


Fig. 4.

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UNITED STATES PATENT OFFICE.

ARTHUR C. SHAPPELL, OF LIMA, OHIO.

BLENDER.

Application filed May 27, 1926. Serial No. 112,055.

This invention relates to a utensil designed primarily for blending powdered ingredients such as flour and baking powder and the like.

One of the objects of the invention is to provide a simple and compact structure of this character by the use of which a perfect blend of the ingredients can be effected, the said utensil including a container for receiving the blended material so that the operation will be rendered dustless and there will be no waste of the materials.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed may be made within the scope of what is claimed, without departing from the spirit of the invention.

In the accompanying drawings the preferred form of the invention has been shown.

In said drawings,

Figure 1 is a central vertical section through the blender, the operating mechanism being shown in elevation.

Figure 2 is a section on line 2—2, Figure 1.

Figure 3 is an enlarged section through a portion of the screens and adjacent parts.

Figure 4 is a plan view of a portion of one of the screens and a section through the adjacent part of the body, showing part of one of the rods.

Referring to the figures by characters of reference 1 designates the cylindrical body of the blender one end of which is adapted to be closed by a removable cover 2 while the other end portion is enlarged as at 3 to provide an interior annular shoulder 4. Fitted against this shoulder is a fine mesh screen 5 preferably of wire fabric surrounded by the annular enlarged portion 6 of a ring 7, this enlarged portion being seated against the shoulder 4 and suitably secured to the enlarged portion 3 by soldering, by screw threads or in any other manner desired. A second screen 8 of a fine mesh of wire fabric or the like is seated within the enlargement 6 and is held spaced from the screen 5 by a wire ring 9 interposed between the marginal portions of the two screens.

A cross rod 10 is secured at its ends in the ring 7 and extends diametrically across the ring, this rod being provided with a central eye 11 in which is journaled one end portion of a shaft 12. The other end portion of the shaft is journaled within an eye formed at the center of a second rod 13 extending diametrically across and secured to the cylindrical body 1. This rod 13 is similar to the rod 10.

Secured to the shaft 12 is a series of radial arms 14 contacting with the outer surface of the screen 5, each arm having its outer end portion turned back as shown at 15 so as to constitute an agitator. Another set of arms 16 similar to the arms 14 is connected to the shaft 12 so that these arms 16 will engage and slide over the bottom surface of the lower screen 8. The free ends of the arms 16 are likewise bent back to provide agitating fingers 17. A third set of arms indicated at 18 extend radially from the shaft 12 between the two screens 5 and 8 so as to contact with the inner surfaces of both screens.

Secured to shaft 12 is a gear 19 constantly in mesh with a gear 20 secured to a shaft 21. This shaft extends diametrically across the body 1 and is journaled therein, there being a crank arm 22 at one end of the shaft whereby this can be rotated readily.

Removably engaging the ring 7 is a container 23 in the form of a measuring cup having a handle 24.

In using this device the cover 2 is removed and the materials to be blended are placed in the body 1 in proper proportions after which the cover is replaced. Shaft 21 is then rotated and motion will be transmitted through the meshing gears 20 and 19 to shaft 12 with the result that all of the arms 14, 18 and 16 will be rotated. The upper arms 14 will agitate the material and scrape over the upper screen 5, forcing the material over and through the upper screen and into the path of the intermediate arms 18. These, in turn, will scrape along the inner faces of the two screens and force the material through the lower screen 8 slidably engaged by the lower arms 16. In this way the material will be blended and will ultimately be deposited in the cup or container 23. Thereafter the device is inverted with the cup uppermost and the foregoing operation is repeated. Consequently the material will be again directed through the two screens and will return to the body 1. Fol-

lowing this operation the device can again be inverted and the operation repeated. Thus the material can be worked back and forth through the screen with the result that the ingredients will be thoroughly mixed or blended.

What is claimed is:

A blender including a body, a removable cover at one end, a removable container for closing the other end, a ring connected to the body for engagement by the container, screens interposed between the body and ring, a spacing ring between the marginal portions of the screens, cross rods within the body and ring respectively, a shaft journaled therein and extending through the screens, radial arms upon the shaft between and slidably engaging the screens, radial arms upon the shaft for sliding engagement with the outer or exposed faces of the respective screens, and means for rotating the shaft.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature.

ARTHUR C. SHAPPELL.