

J. BURNS.
POWDER MIXER.

No. 63,208.

Patented Mar. 26, 1867.

Fig. 2

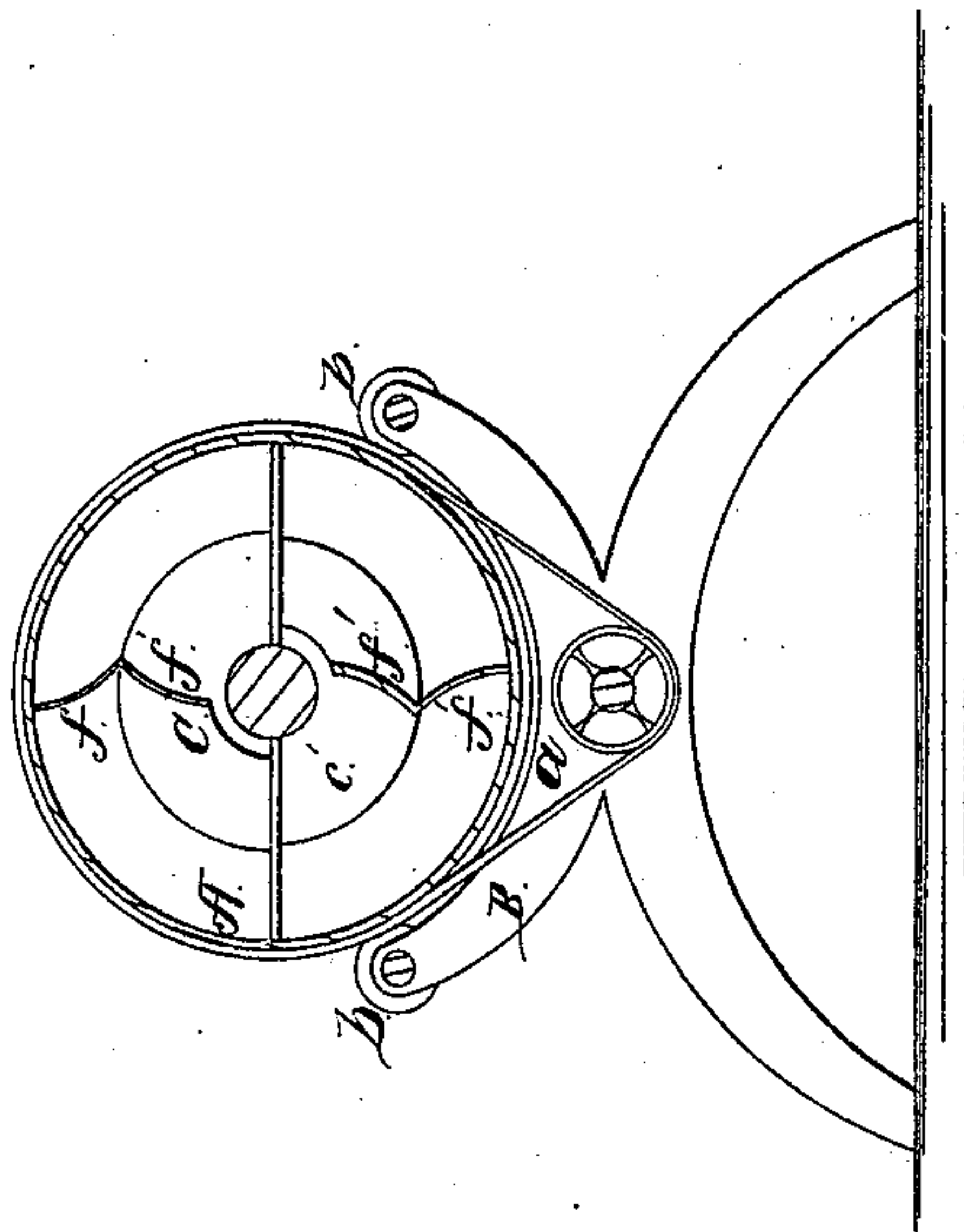
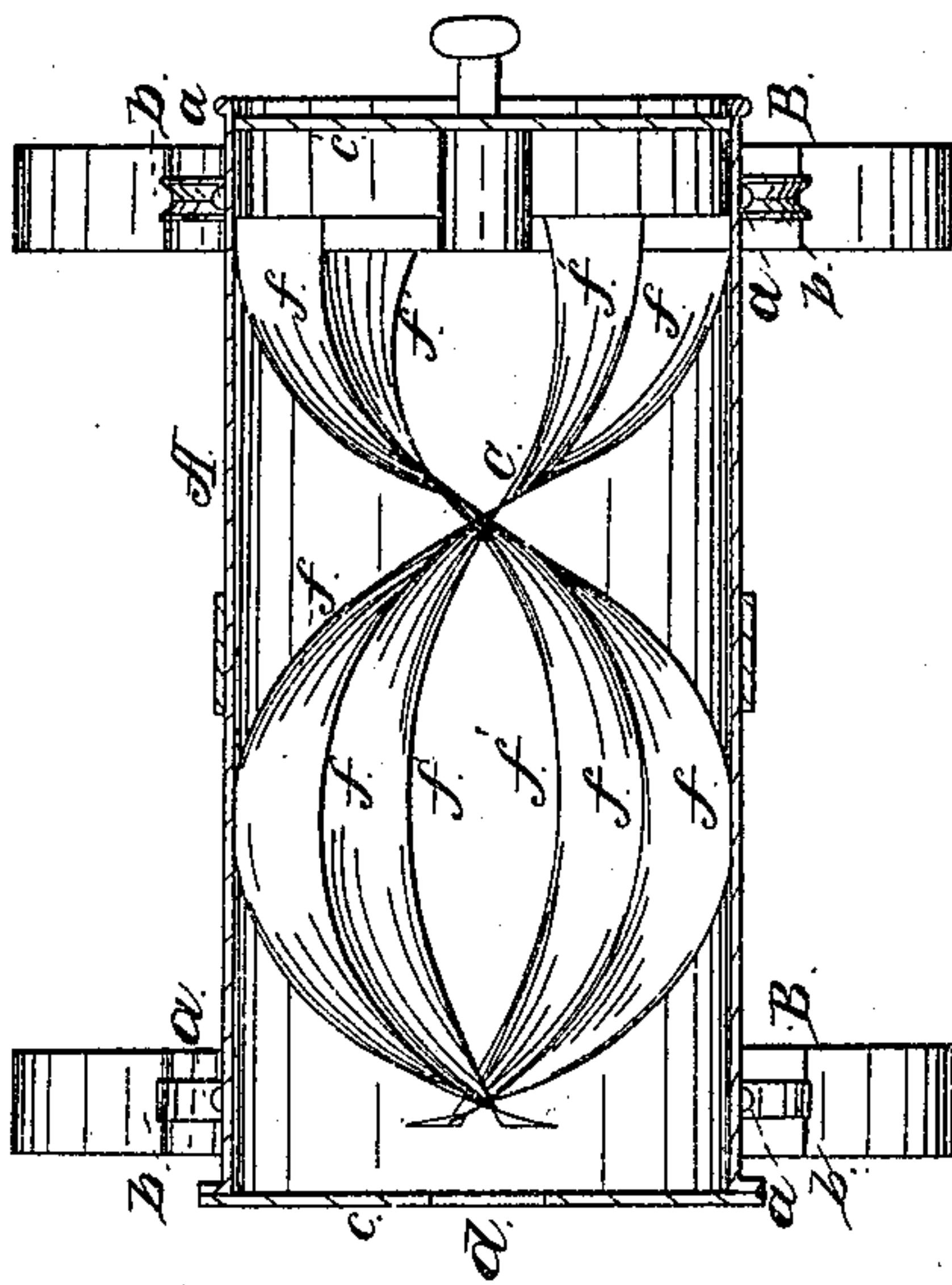


Fig. 1



Witnesses:
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United States Patent Office.

JABEZ BURNS, OF NEW YORK, N. Y.

Letters Patent No. 63,208. dated March 26, 1867.

IMPROVED POWDER MIXER.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, JABEZ BURNS, of No. 269 Washington street, in the city, county, and State of New York, have invented a new and improved Apparatus for Mixing Powders, &c.; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing, forming a part of this specification, in which—

Figure 1 represents a horizontal section of this invention.

Figure 2 is a transverse section thereof.

Similar letters of reference in both views indicate corresponding parts.

This invention relates to an apparatus which is intended for mixing granulated substances, such as ground coffee or powders of any description. It consists in the arrangement of a movable agitator in the interior of a drum, to which a revolving motion can be imparted by some suitable mechanism, and which is provided with a feed opening in such a manner that said agitator can be readily removed and cleaned whenever the mixer is to be used for materials of different nature.

The agitator is constructed of a series of spiral flanges, which are secured to one of the heads of the drum, and said head is made movable, so that by the action of the spiral flanges the materials to be mixed are thrown towards the movable head, and if said head is drawn out a short distance it serves as an abutment, preventing the material from being scattered, and conducting it into a barrel or other suitable receptacle below.

A represents a cylindrical drum, made of sheet metal or any other suitable material, and of any desirable size. This drum is provided with two or more rims, *a*, which rest on flat or grooved pulleys or rollers, *b*, the axles of which have their bearings in arms or standards B, so that a revolving motion can be imparted to said drum by hand or by any other suitable power. It must be remarked, however, that the drum may be supported in any other suitable manner, provided it be so arranged that a revolving motion can be imparted to it, and I do not wish to confine myself to any peculiar manner of supporting the drum, neither do I wish to restrict myself to any particular mechanism for imparting motion to said drum. The drum A is provided with two heads, *c c'*, one of which is fixed and the other movable. The fixed head *c* is provided with a feed opening, *d*, through which the material to be mixed is introduced. The movable head is provided with a handle, *e*, by means of which the same can be drawn out of the drum, and from its inner surface projects the agitator C. This agitator is composed of a series of spiral flanges, *f f'*, which run in opposite directions, and which are so arranged that by the outer flanges *f* the material to be mixed is carried in one direction, and by the inner flanges *f'* it is carried in the opposite direction, and that by their combined action the material fed into the drum is returned over and over again and thoroughly mixed. When the operation of mixing is finished, the head *c'*, together with the agitator, can be readily withdrawn and all the parts can be easily cleaned, which is absolutely necessary whenever the mixer is to be used for different materials, such as ground coffee, pepper, or spices of different kind, or for chemicals.

By these means a mixer is obtained which effects the desired object thoroughly and with great rapidity, and which can be used for powders or granulated substances of every kind.

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

The spiral flanges *f f'*, running in opposite directions, in combination with the movable head *c'*, drum A, and standards B, with band and friction-rollers, constructed and operating substantially as and for the purpose set forth.

JABEZ BURNS.

Witnesses:

W. HAUFF,
RUDOLF WUSTE.