

(No Model.)

J. H. ORDWAY.  
MIXING MACHINE.

No. 358,290.

Patented Feb. 22, 1887.

Fig. 1

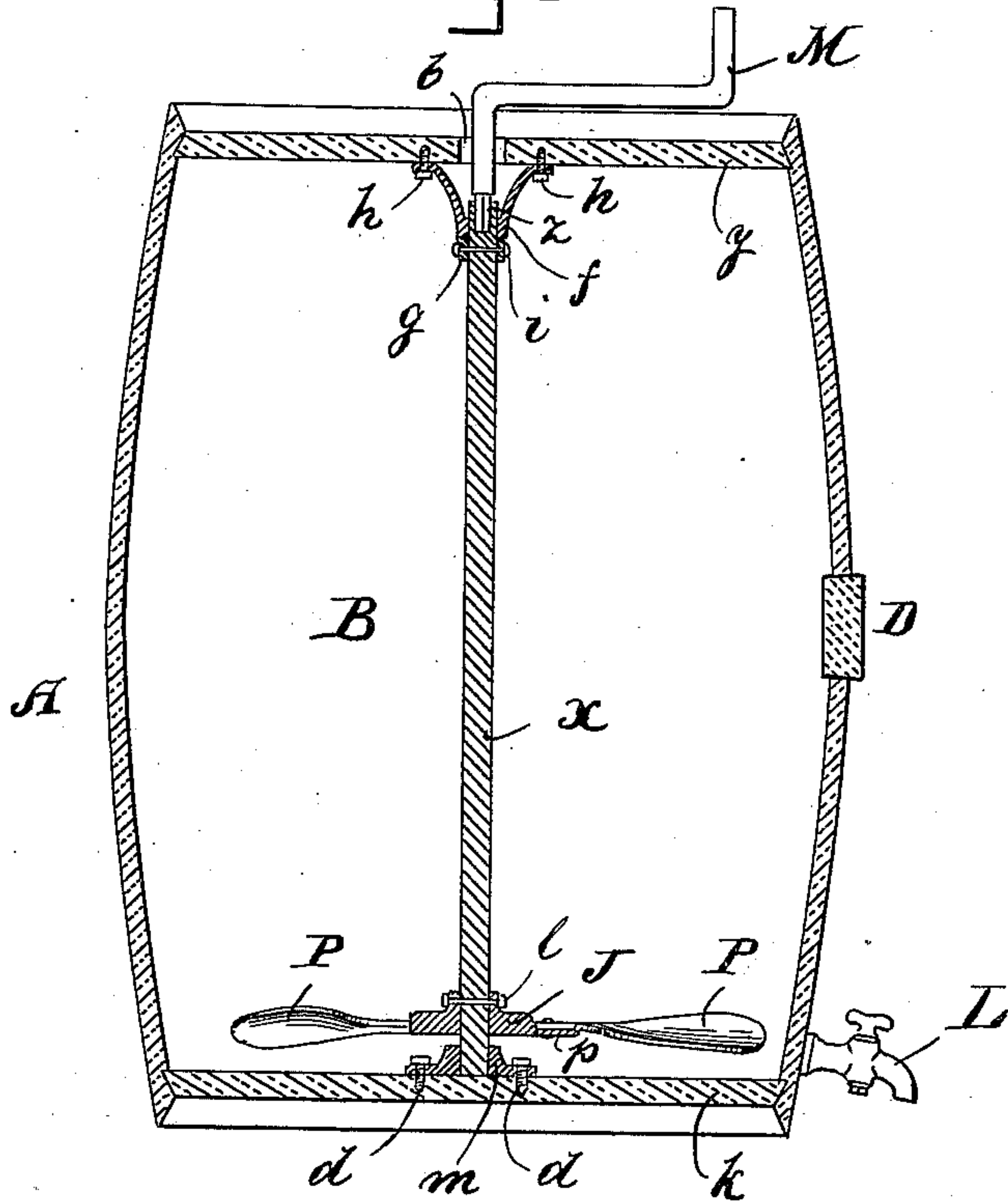
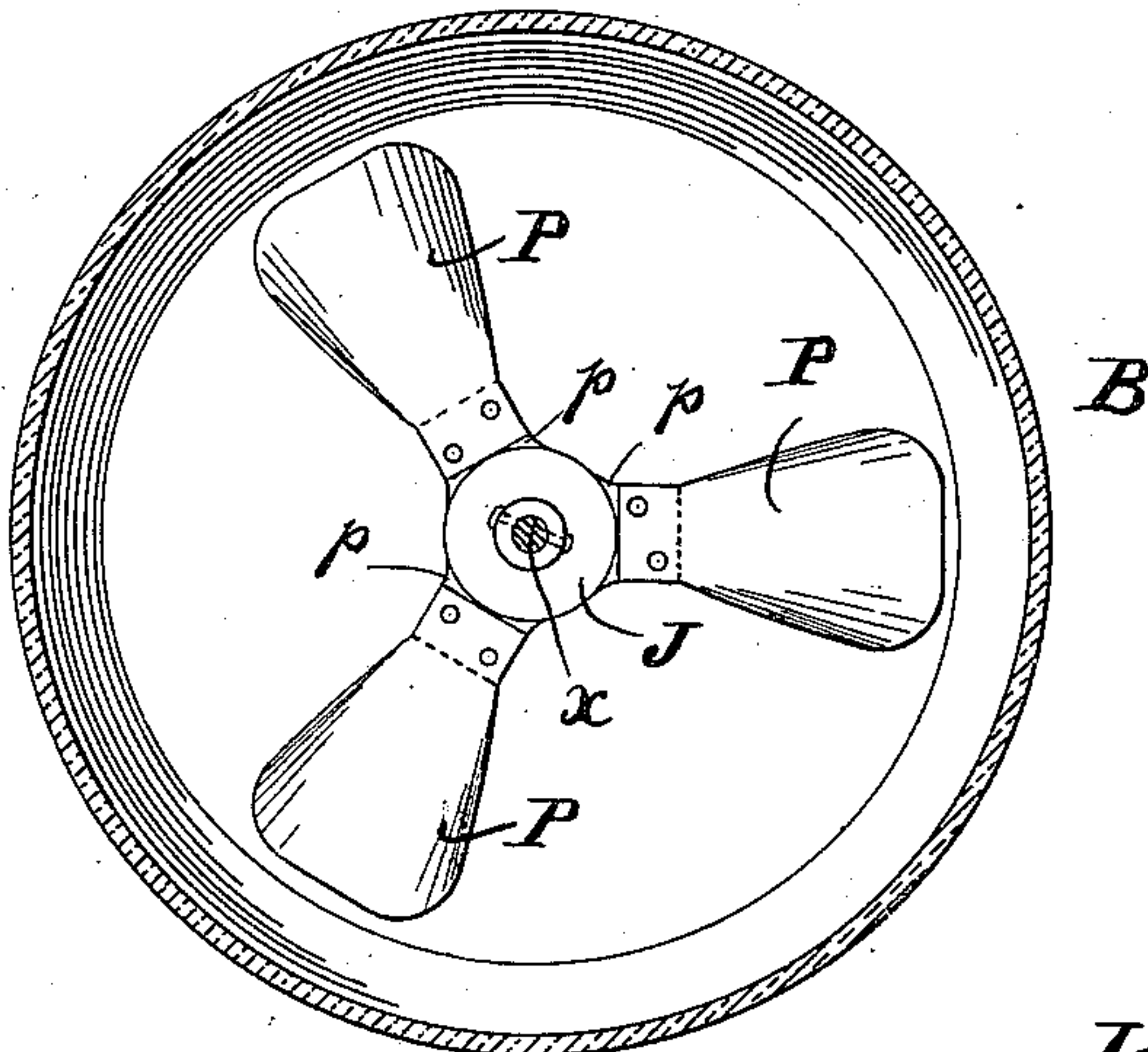


Fig. 2.



Witnesses.

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# UNITED STATES PATENT OFFICE.

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## MIXING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 358,290, dated February 22, 1887.

Application filed October 28, 1886. Serial No. 217,394. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH H. ORDWAY, of Chelsea, in the county of Suffolk, State of Massachusetts, have invented a certain new and useful Improvement in Apparatus for Stirring Liquids in Barrels, Casks, &c., of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which said invention appertains 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 section representing my improved stirrer in position for use, some of the parts being shown in side elevation; and Fig. 2, a bottom plan view, the lower head of the body being represented as removed.

Like letters of reference indicate corresponding parts in the different figures of the drawings.

My invention relates more especially to that class of apparatus which is employed in stirring and mixing liquid blackings, inks, and similar compounds from which a sediment is liable to settle when left at rest; and it consists in a novel construction and arrangement of parts, as hereinafter more fully set forth and claimed, the object being to produce a cheaper and more effective device of this character than is now in ordinary use.

The nature and operation of the improvement will be readily understood by all conversant with such matters from the following explanation.

In the drawings, A represents the body of the stirrer, and B the stirrer proper, considered as a whole. The body consists of a stout barrel or cask, which is provided with heads *y k*, in the usual manner. The stirrer proper consists of a rod or shaft, *x*, preferably composed of iron pipe, which is vertically arranged in the body B, its lower end being disposed in a step or bearing, *m*, secured centrally to the inner side of the head *k* by screws *d*, the upper end of said shaft being journaled in a circular or cup-shaped bearing, *f*, which is centrally secured to the inner side of the head *y*. A sleeve or collet, *g*, is secured to the shaft *x* slightly below the bearing *f*, the object of said collet being to prevent the shaft from being drawn out of the step *m* when the apparatus is in

use. A square hole, *z*, is formed in the upper end of the shaft *x*, adapted to receive a corresponding portion of a crank-shaft, M, said shaft being inserted in the shaft *x* by passing it through a hole, *b*, in the head *y*.

At the lower end of the shaft *x*, and a sufficient distance from the bottom *k* to clear the bearing *m*, is disposed a flanged collet, J, said collet being secured to the shaft by a bolt, *l*, and provided with arms *p*, to which are bolted blades P, preferably composed of light sheet-iron, said blades being constructed and arranged substantially like the blades of a screw or propeller for steamships.

In the use of my improvement the stirrer proper, B, is adjusted in the body A before it is filled with the compound, and the hole *b* closed by a cork or plug. The barrel is then filled, in the usual manner, through the bung D.

When it is desired to use the contents of the barrel, the consumer removes the plug from the hole *b* and inserts the square portion of the crank-shaft M in the hole *z* of the shaft *x*. The crank is then turned, causing the blades P to revolve and thoroughly mix the liquid, any sediment that may have collected at the bottom of the body being carried upwardly by the current produced by the blades.

The contents of the mixer may be drawn off by means of a faucet, L, inserted near the bottom of the body A.

It is usually the custom with consumers of compounds of the character described to remove or break in the head of the barrel or cask, stir or mix the compound by means of a stick or other like implement, and then dip or ladle out the contents of the barrel, by which method a waste of material occurs and the barrel is partially destroyed; but by the use of my improvement it will be obvious that these objections are overcome and far more satisfactory results attained.

It will be understood that the hole *z* is constructed of the same size in all of the shafts *x* used, so that but one crank-shaft M will be required by the consumer.

I do not confine myself to constructing the shaft *x* of iron pipe, as it may be made solid and of other material. Neither do I confine myself to constructing the blades P of sheet-iron, although I deem it preferable; nor to

using the specific number of blades shown in the drawings, as one or more may be used, if desired; nor to connecting the crank to the shaft *x* in the manner described, as it may be  
5 detachably connected in any suitable manner; nor to constructing the body of the mixer in the form of a cask or barrel, as it may be made of any suitable shape.

Having thus explained my invention, what  
10 I claim is—

The combination of a closed cask provided with a discharge-faucet and having step and

cup-shaped bearings on its interior, a shaft journaled in said bearings entirely within the cask, stirring-blades fixed to said shaft, and a 15 collar on said shaft below the inner end of said cup-shaped bearing, said cask being provided with a stoppered or bunged opening opposite said cup-shaped bearing for the admission of a crank, substantially as described.

JOSEPH H. ORDWAY.

Witnesses:

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