W. M. LINDSAY.

PROTECTOR FOR MIXING MACHINES.

APPLICATION FILED JULY 30, 1914.

1,128,699.

Patented Feb. 16, 1915.

Fig. 1.

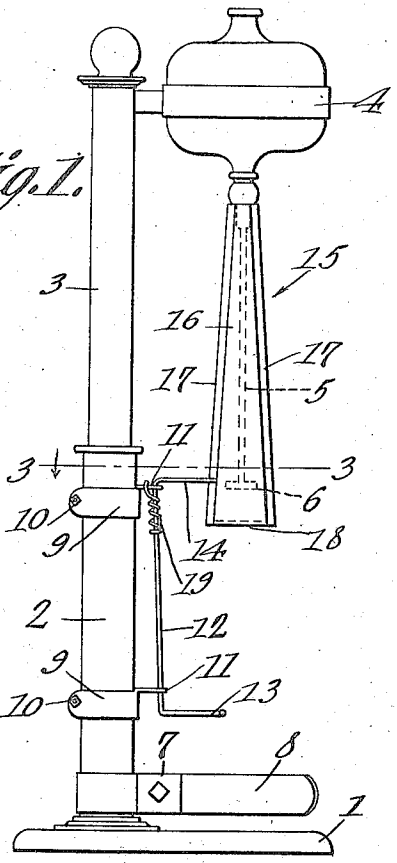


Fig. 2.

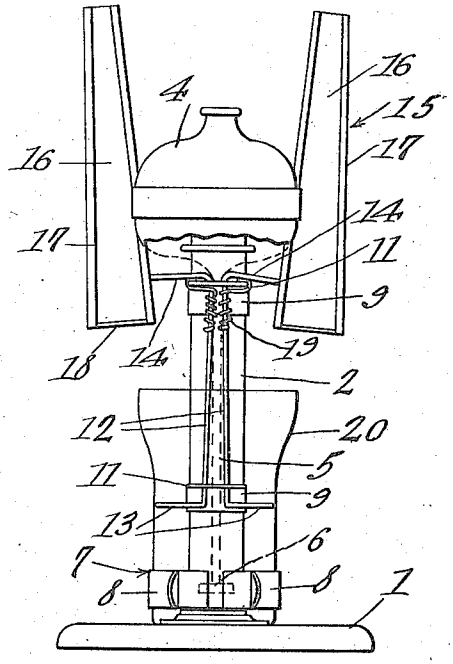
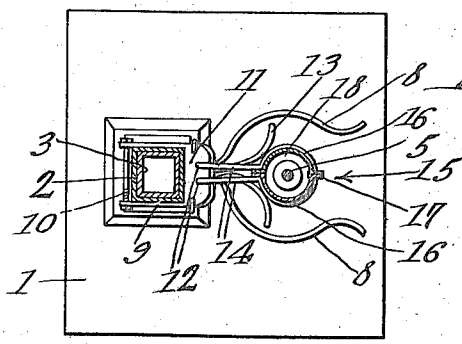


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

WILLIAM M. LINDSAY, OF PITTSBURG, KANSAS, ASSIGNOR OF ONE-HALF TO FRANK CUMISKEY, OF PITTSBURG, KANSAS.

PROTECTOR FOR MIXING-MACHINES.

1,128,699. Specification of Letters Patent. Patented Feb. 16, 1915.

Application filed July 30, 1914. Serial No. 854,180.

To all whom it may concern:

Be it known that I, WILLIAM M. LINDSAY, a citizen of the United States, residing at Pittsburg, in the county of Crawford and State of Kansas, have invented a new and useful Protector for Mixing-Machines, of which the following is a specification.

The present invention appertains to a protector for mixing machines, and aims to provide a novel and improved means for protecting or covering the paddle or agitator and its stem, of a drink mixing machine, when the machine is idle or in inoperative position.

The present invention contemplates the provision of a protector of unique construction, which is applicable to a drink mixing machine in a simple and effective manner, for protecting or enveloping the agitator and agitator stem, when the machine is at normal or idle condition.

It is also the object of this invention, to provide a device of the nature indicated, which will be automatic in its nature, whereby the protector proper will be automatically applied to and removed from the agitator and agitator stem when the tumbler or other vessel is removed from and applied to the machine, respectively.

It is also within the scope of the present invention to provide a protecting device for mixing machines, which will be comparatively simple, light, non-encumbering and inexpensive in construction, which may be readily applied to a mixing machine to be operated automatically by the application and removal of a tumbler or other vessel, and which will be simple, convenient, practical and efficient in its use.

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 can be made within the scope of what is claimed without departing from the spirit of the invention.

The invention has been illustrated in its preferred embodiment in the accompanying drawing, wherein:—

Figure 1 is a side elevation of the device as applied to a mixing machine, the parts being in normal position. Fig. 2 is a front view of the device in opened position for permitting the mixing machine to operate in the usual manner. Fig. 3 is a sectional view taken on the line 3—3 of Fig. 1.

The mixing machine depicted in the drawing, which may be taken as conventional or typical, embodies the base 1 having a hollow standard 2, into which is telescoped a standard section 3 carrying a motor 4 at its upper end and to one side thereof. The armature of the motor 4 is provided with a depending stem or shank 5 carrying the paddle or agitator 6 at its lower or free end, and a tumbler or glass holder 7 is attached to the lower end of the standard or pedestal 2 and is equipped with a pair of spring jaws 8 below the motor 4 for receiving a tumbler, glass or other vessel in which the drink is to be mixed.

Mixing machines of the character indicated are common, and need no further detailed description, it being noted that the member or section 3 of the standard may be lowered and raised to depress the agitator 6 into the glass or vessel and to extract or withdraw the agitator therefrom after the drink has been mixed.

The present device, which is in the form of an attachment for the mixing machine, embodies a pair of U-clips 9 straddling or embracing the standard or pedestal 2, and having their terminals connected by clamping bolts 10, to hold the clips in place. The intermediate portions of the clips 9 are provided with outturned lips or flanges 11, through which are journaled a pair of rods or rock shafts 12 which are provided at their lower ends with forwardly projecting curved tappets or fingers 13 disposed immediately above the jaws 8 of the tumbler or glass holder 7. The upper ends of the rods or shafts 12 are bent angularly forward, as at 14, and carry the protector or sheath 15.

The protector or sheath 15 is of tubular or upwardly tapered form, and is divided longitudinally into a pair of companion or complementing sections 16 having the outturned lips 17 along their edges, adapted to abut flatly when the sections 16 are swung together. The rear edges of the sections 16 of the protector or sheath are soldered or otherwise secured to the upper angular ends 14 of the rods or shafts 12 whereby the respective protector sections 16 will be carried by the rods or shafts 12. The lower end of one section 16 is provided with a disk 18 adapted to fit into the lower end of the other section 16 when the sections are folded or swung together, to close the lower end of the protector.

A pair of coiled wire springs 19 are mounted upon the rods or shafts 12 below the upper lip 11, and are terminally engaged to the said lip and rods or shafts 12, to yieldably swing the rods or shafts 12 in such a direction as to normally tend to swing the sections 16 of the protector together.

In practice, the device may be readily attached to the mixing machine as will be obvious, and the parts of the device or attachment are so arranged, that ordinarily, when the standard section 3 is raised (the member 3 being usually raised by means of a spring) so as to raise the motor 4 and the agitator 6 and its stem 5, the sections 16 will be swung together under the influence of the springs 19, to fit snugly together so as to surround the agitator 6 and its stem 5 to completely envelop and protect the same from dust, insects, and other foreign matter. The upper end of the sections 16 embrace the upper portion of the agitator stem or spindle 5, to close the upper end of the protector 15, while the end piece 18 carried by the lower end of one section 16 closes the lower end of the protector. Now, when the machine is to be brought into operation, the tumbler, glass or other vessel, 20 being snapped into or seated within the jaws 8, will strike the tappets or fingers 13, and will swing them apart and rearwardly, and as a result, the protector sections 16 will be swung apart and opened, as seen in Fig. 2, to enable the motor 4 to be depressed therebetween without interference. In this manner, when the tumbler or other vessel is applied to the machine, the protector will be opened, and the motor may be reciprocated vertically to depress the agitator 6 into the tumbler, or to raise the agitator out of the tumbler, when the tumbler is to be removed. As soon as the tumbler is removed, the tappets 15 will be released, and the agitator and agitator stem having been previously raised with the motor 4 and the standard member 3, will cause the sections 16 of the protector to swing together so as to surround the agitator and agitator stem while they are in idle or inoperative position.

The present device is therefore entirely automatic in its operation, and will not inconvenience the use of the mixing machine in usual mode, but on the other hand, the present attachment will render the use of the mixing machine more convenient, inasmuch as the agitator and agitator stem will be protected against dust, insects, and other foreign matter, while the machine is in idle or normal position. This will eliminate the necessity of the repeated cleaning of the agitator and its stem.

From the foregoing, taken in connection with the drawing, the other advantages and capabilities of the present invention will be obvious to those skilled in the art, without further comment being deemed necessary.

Having thus described the invention, what is claimed as new is:—

1. The combination with a mixing machine including an agitator, of a protector for the agitator including separable sections carried by the machine and adapted to be swung to and from each other.

2. The combination with a mixing machine including an agitator, of a protector for the agitator including separable sections, and means for moving the sections to and from each other.

3. The combination with a mixing machine including an agitator, of a protector for the agitator including separable sections, and spring pressed means for normally holding the sections together to inclose the agitator and including a tappet adapted to be moved for separating the sections.

4. The combination with a mixing machine including an agitator, of a protector including separable sections, and oscillatory members carried by the machine and carrying the said sections.

5. The combination with a mixing machine including an agitator, of a protector including separable sections, and spring pressed oscillatory members carried by the machine and carrying the said sections, said oscillatory members having means for actuating them to separate the said sections.

6. The combination with a mixing machine including an agitator, of a protector including separable sections, and spring pressed oscillatory members carried by the machine and carrying the said sections, the said oscillatory members having tappets adapted to be actuated by a mixing vessel to separate the said sections.

7. The combination with a mixing machine, including an agitator, of a pair of rock shafts carried by the machine having tappets to be engaged by a mixing vessel, and a protector including sections carried by the said shafts, the shafts being spring

pressed to normally hold the sections together.

8. The combination with a mixing machine, including an agitator, of a protector for the agitator including separable sections carried by the machine and adapted to encircle the agitator.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

WILLIAM M. LINDSAY.

Witnesses:

F. A. STRYKER,

BERT WHEELER.