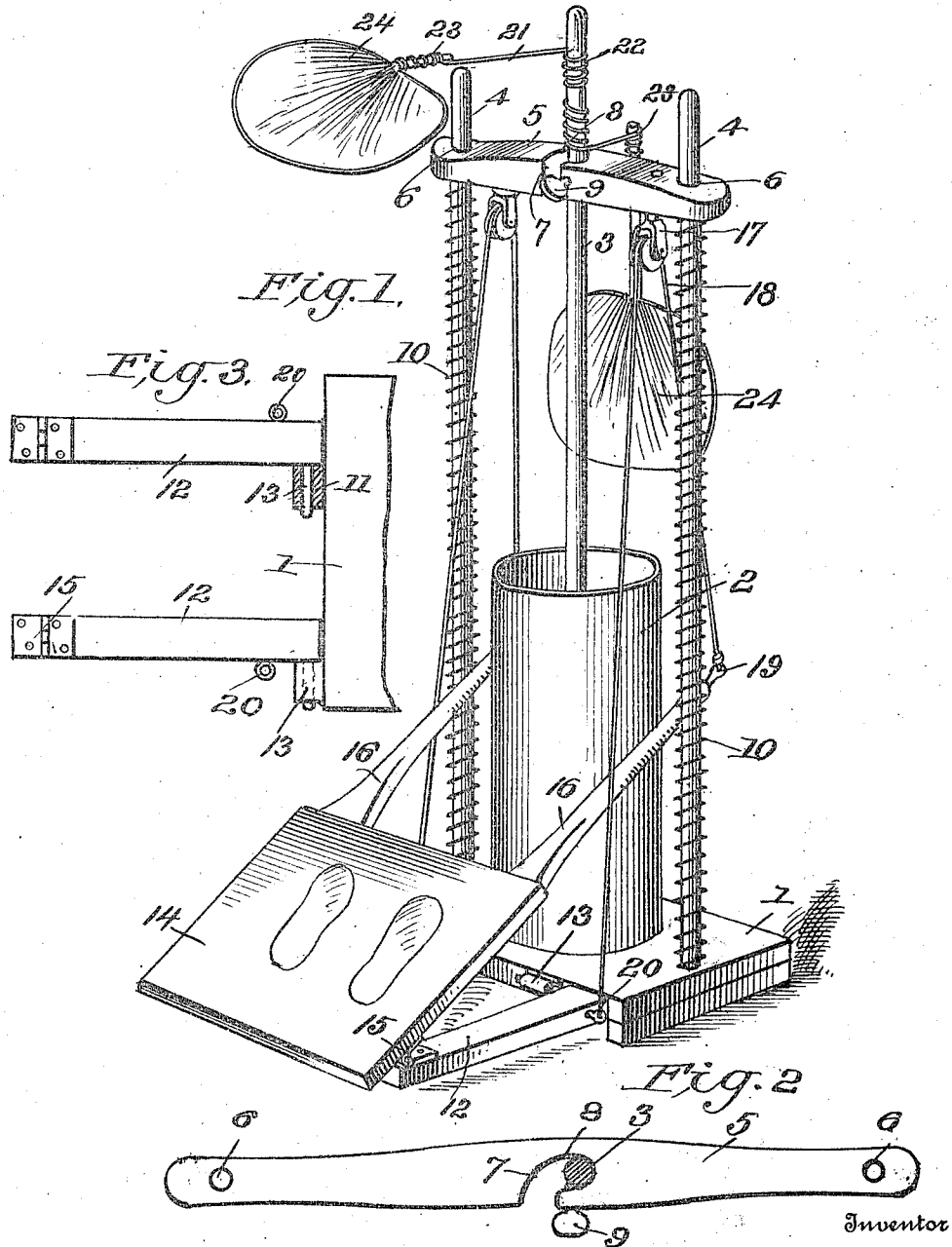


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CHURN OPERATING MECHANISM.
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1,030,873.

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CHURN-OPERATING MECHANISM.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WILLIAM H. COLMAN, a citizen of the United States, residing at Paducah, in the county of McCracken and State of Kentucky, have invented certain new and useful Improvements in Churn-Operating Mechanism, of which the following is a specification.

This invention relates to operating mechanism for a reciprocating churn dasher and one object of the invention is to so construct the operating mechanism that it may be operated by foot or by hand, at the will of the operator. The operating mechanism includes a base upon which the churn is to be disposed, a cross-head which is mounted to reciprocate upon a support upon the base, and a treadle which is detachably connected with the base and has connected to it a cable which is in turn connected with the said cross-head, the treadle and cable being detachably connected to the base and cross-head, respectively, so that when it is not desired to operate the mechanism by foot, the said cable and treadle may be removed and the cross-head reciprocated by hand.

Another feature of the invention resides in the means provided for connecting the dasher rod of the churn to the cross-head of the operating mechanism.

The invention also contemplates the provision of a novel fan attachment for the dasher rod, so constructed that the fan or fans may be adjusted to different positions to suit the operator.

For a full understanding of the invention reference is to be had to the following description and accompanying drawing, in which:—

Figure 1 is, a perspective view of the mechanism embodying the present invention. Fig. 2 is a plan view of the cross-head thereof. Fig. 3 is a plan view, partly in section, showing the means provided for detachably connecting the treadle to the base.

Corresponding and like parts are referred to in the following description and indicated in all the views of the accompanying drawing by the same reference characters.

In the drawing the base of the mechanism is indicated by the numeral 1 and is adapted for the disposal thereon of the churn body indicated by the numeral 2. The rod of the churn dasher is indicated by the nu-

meral 3. Uprights 4 extend upwardly from the base 1 in spaced parallel relation and a cross-head indicated by the numeral 5 is formed at its ends with openings 6 receiving the uprights 4, the cross-head being in this manner mounted for vertical reciprocatory movement upon the said upright. The cross-head 5 is formed in its forward side, with a notch 7 which extends inwardly toward the opposite side of the cross-head and thence laterally to the right as indicated by the numeral 8, the wall of the notch at its inner end being of such contour as to partly receive the dasher rod 3, as clearly shown in Fig. 2 of the drawing.

A set screw 9 is threaded through the forward wall of the notch 7 at a point to the left of the axis of the dasher rod 3 whereby to bear at its inner end against that portion of the dasher rod not embraced by the wall of the notch. At this point it will be readily understood that the dasher rod may be readily disconnected from the cross-head by loosening the set-screw 9 with the right hand and grasping the dasher rod and slipping it out of the notch with the left hand.

A spring 10 is fitted upon each of the uprights 4 and these springs support the cross-head 5 in elevated position, it being understood that when the cross-head is depressed and then released, the springs will return it to normal position. A socket 11 is secured upon the forward edge of the base 1, near each end thereof, and arms 12 are provided each with a laterally projecting pin 13 fitting in the respective socket 11, the sockets being located at corresponding sides of the arms and the pins being removably fitted in the said sockets so that the arms may be disconnected from the base 1 by moving them laterally simultaneously. A treadle 14 is hinged as at 15 to the forward ends of the arms 12 and is provided with rearwardly extending arms 16 which extend between the uprights 4 and the churn body 2 as clearly illustrated in Fig. 1 of the drawing. A pulley 17 is detachably mounted near each end of the cross-head 5 upon the under side thereof, and a cable 18 is trained over each of the pulleys 17 and is connected at one end as at 19 to the respective arm 16, the other end of each cable being connected to an eye 20 upon the respective arm 12.

From the foregoing, it will be readily understood that by pressing down upon the

treadle 14, the cross-head 5 may be lowered, thereby compressing the springs 10 and that upon releasing the treadle, the cross-head will be slid upwardly upon the uprights 4 by the said springs. Should it be desired to reciprocate the cross-head by hand, the pulleys 17 may be disconnected therefrom and the arms 12 may be disconnected from the base 1, in the manner heretofore described.

10 As before stated, the invention contemplates the provision, in connection with the dasher rod, of novel fan attachments and each of these attachments is formed from a single length of resilient wire indicated by the numeral 21 and coiled at one end as at 15 22 to form a sleeve adapted to be frictionally fitted upon the dasher rod 3 near its upper end. The other end of the wire is bent as at 23 to form a sleeve designed to receive, frictionally, the handle of a fan indicated by the numeral 24. It is preferable 20 that two of these attachments be provided upon the dasher rod, one being of the form illustrated at the top of Fig. 1 of the drawing and having its portion between its ends extending forwardly at right angles from the said dasher rod and supporting the fan 24 in horizontal position or at an angle of inclination to the right or to the left. The 25 other attachment preferably has its sleeve 23 bent to extend downwardly at right angles from its intermediate portion so that the fan 24 supported thereby will be in substantially a vertical plane. As stated, the 30 wire from which these attachments are formed, is resilient and when the dasher is reciprocated vertically, the intermediate portions of the wires will yield to the resistance offered by the passage of the fan 40 through the air and a gentle draft will be created. The upper one of the fans in Fig. 1 is designed to impart comfort to the operator of the mechanism, while the other fan is designed to drive flies and other insects

from the vicinity of the mouth of the churn 45 body.

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

1. In churn operating mechanism, a base, spaced socket members secured upon one 50 side of the base, a treadle, spaced arms hinged to the treadle, laterally projecting pins at the ends of the arms, the pins projecting from corresponding sides of the said arms and being fitted removably and pivotally in the socket members, a head mounted 55 for vertical reciprocatory movement upon the base, and operative connection between the treadle and said head.

2. In churn operating mechanism, a reciprocatory head for the connection of the 60 dasher-rod of a churn, the said head being formed with a notch extending inwardly and thence laterally from one edge thereof and arranged to receive the said rod, and a set- 65 screw threaded through the forward wall of the notch and adapted to bear against the said rod and holding the same fixed for reciprocatory movement with the head.

3. In churn operating mechanism, a reciprocatory head arranged for the attachment of the dasher-rod of a churn, the said head being formed with a dasher-rod-receiving notch extending inwardly and 70 thence laterally from one side thereof, the said notch being formed at its inner end to partly embrace the rod, and a set-screw 75 threaded through the wall of the notch and arranged to bear against that portion of the rod not embraced by the wall of the notch 80 and holding the same fixed for reciprocatory movement with the head.

In testimony whereof, I affix my signature in presence of two witnesses.

WILLIAM H. COLMAN. [L. s.]

Witnesses:

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