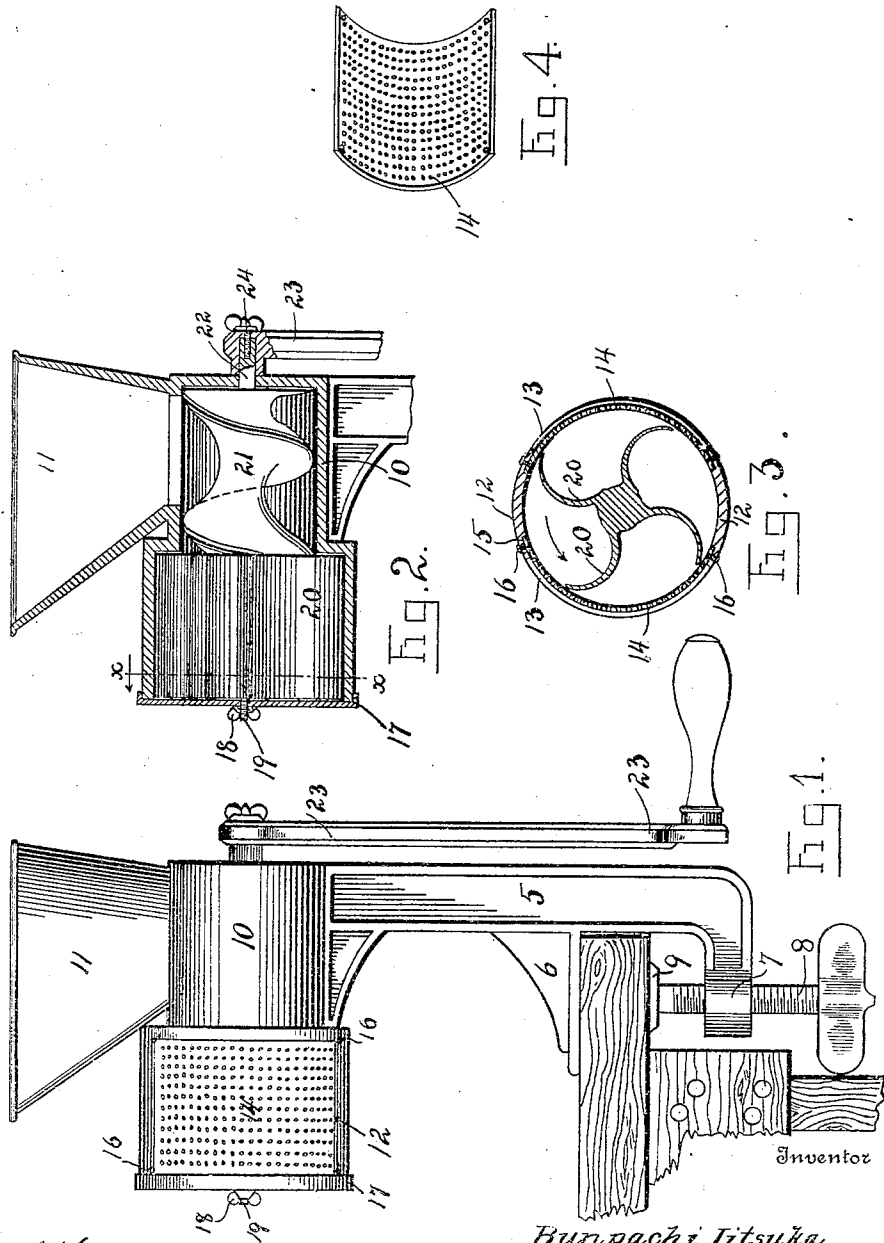


B. IITSUKA.
VEGETABLE MASHER.
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941,073.

Patented Nov. 23, 1909.



Witnesses
T. F. Fitchugh Knox
A. M. Murray.

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Bunpachi Iitsuka
Shepherd Campbell
Attorneys

UNITED STATES PATENT OFFICE.

BUNPACHI IITSUKA, OF SAN DIEGO, CALIFORNIA.

VEGETABLE-MASHER.

941,073.

Specification of Letters Patent.

Patented Nov. 23, 1909.

Application filed June 29, 1909. Serial No. 505,062.

To all whom it may concern:

Be it known that I, BUNPACHI IITSUKA, a subject of the Emperor of Japan, residing at San Diego, in the county of San Diego and State of California, have invented certain new and useful Improvements in Vegetable-Mashers, of which the following is a specification.

This invention relates to a vegetable masher and has for its object the provision of a device of this character adapted to mash and reduce to a pulp vegetables of various kinds, the device being adapted to be readily secured upon a table, shelf, or like support.

Further objects and advantages of the invention will be set forth in the detailed description which now follows.

In the accompanying drawing, Figure 1 is a side elevation of a vegetable masher constructed in accordance with the invention, Fig. 2 is a vertical section therethrough, Fig. 3 is a transverse section upon line *x-x* of Fig. 2, and Fig. 4 is a detail perspective view of one of the screen plates hereinafter described.

Like numerals designate corresponding parts in all of the figures of the drawing.

Referring to the drawing, it will be seen that the device comprises a standard 5 having an offset flange 6 adapted to rest upon the upper face of a shelf, table, or like support. The lower end of the standard is inwardly directed as at 7 and a set screw 8 is threaded therein, said set screw having a head 9 adapted to bear against the under side of the support to thereby clamp the entire structure in position in the manner ordinarily employed in devices of this character.

Mounted upon the standard 5 is a barrel 10 surmounted by a hopper 11. The barrel 10 terminates in a casing 12 having openings 13 formed in its sides. These openings are covered when the device is in use by perforate or screen plates 14, see Fig. 4. Any desired means may be employed for securing these screen plates in position. I have illustrated the walls of the casing 12 as being cut away at 15 to receive the ends of the screen plates and in such manner that a continuous and flush surface is provided at the juncture of said screen plates with the inner peripheral wall of the casing proper.

Screws 16 serve to secure the screen plates in position as will be readily understood. A cap 17 fits upon and closes the outer end of

the casing 12. This cap is held in position by a thumb nut 18 which is threaded upon a reduced extension 19 of a feeding and mashing element. This feeding and mashing element comprises a series of curved longitudinally extending blades 20 (see Figs. 2 and 3), that are integrally formed with a spiral feeder or conveyor 21. This conveyor has a shaft 22 extending from the end thereof and through the front wall of the barrel 10. An operating handle 23 is secured upon this shaft by a screw 24 and provides means for imparting rotation to the spiral conveyor and to the blades 20.

The operation of the device is as follows: The vegetables that it is desired to mash are fed into the hopper 11 and pass downwardly into the barrel 10, where they are fed toward the left in Fig. 2, by the spiral conveyor 20 and are caused to enter the casing 12 between the blades 20. The forcing of the vegetables between these blades by the conveyor, tends to mash and crush the vegetables to a certain extent. Complete and effective reduction of the vegetables to a pulp is however, effected by the blades forcing the vegetables through the openings in the screen plates 14.

From the foregoing description, it will be seen that this device comprises simple and efficient means for mashing vegetables. By the provision of mechanical elements herein shown and described, the vegetables are forced with such pressure against the perforate or screen plates as to enable vegetables of comparative hardness to be reduced to a pulp. The direct wiping action of the blades 20 across the face of the perforate or screen plates forces the entire contents of the barrel 12 to pass through said screen plates. Furthermore, the curving of the blades 20 which travel in the direction of the arrow in Fig. 3, plays an important part in the operation of the device, for it is apparent that a pocket continually diminishing in size toward the outer end of the blades is thus formed between the convex side of the blades and the inner periphery of the casing 12. The material to be mashed is caught in these pockets and is caused to travel toward the periphery of the casing 12, and a more efficient mashing action is had than would be the case if the blades were straight. Since the screen plates are removably mounted they may be removed when desired for the purpose of thoroughly

cleansing them, or for the purpose of substituting screen plates having larger or smaller perforations. While the elements shown and described are well adapted to serve the purposes for which they are intended, it is to be understood that the invention is not limited to the precise construction set forth, but includes within its purview such changes as may be made within the scope of the appended claim.

Having described my invention, what I claim is:

A device of the character described, comprising a supporting standard and a hollow member supported therefrom, said hollow member comprising a barrel and a casing, a hopper mounted in said barrel, a spiral conveyer working in said barrel beneath said hopper, means for rotating said spiral conveyer, a removable screen normally closing

an opening formed in the wall of the casing, means for securing said screen in position, a plurality of blades secured to and rotating with the spiral conveyer, said blades lying entirely within said casing, said casing being of uniform diameter throughout its length, and said blades being concavo-convex in cross section and presenting their convex faces in the direction of their rotation, and the outer edges of said blades being straight and lying close to the inner face of the casing and the screen throughout the length thereof.

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

BUNPACHI IITSUKA.

Witnesses:

C. H. PAYNE,
H. M. HADA.