C. W. HOTTMANN.

ICE SHAVING MACHINE.

APPLICATION FILED JUNE 17, 1914.

1,185,322. Patented May 30, 1916.

Fig. 1.

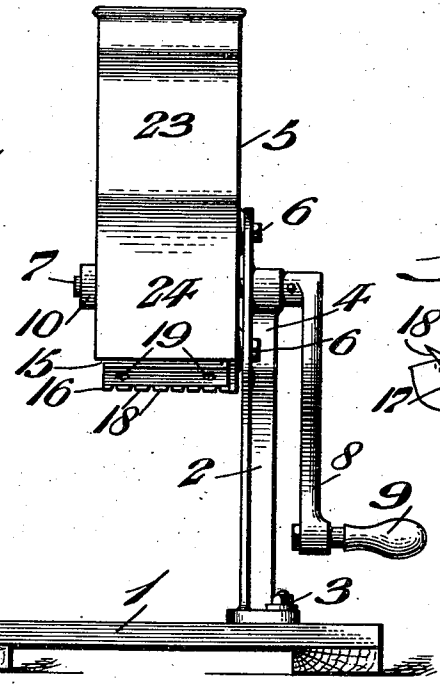


Fig. 4.

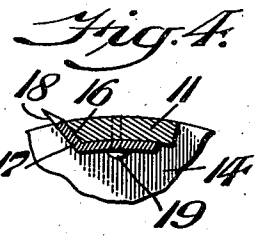


Fig. 2.

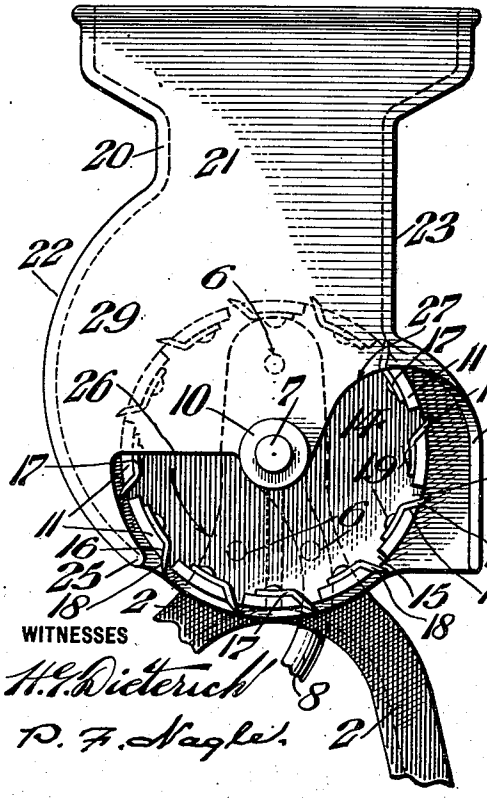
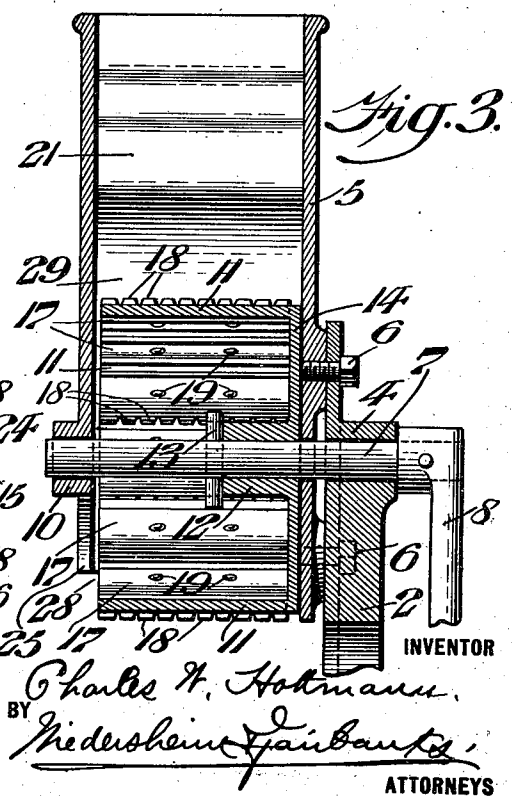


Fig. 3.



WITNESSES

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ICE-SHAVING MACHINE.

1,185,322. Specification of Letters Patent. Patented May 30, 1916.

Application filed June 17, 1914. Serial No. 845,565.

To all whom it may concern:

Be it known that I, CHARLES W. HOTTMANN, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Ice-Shaving Machine, of which the following is a specification.

In many different manufacturing plants, such as bakeries, confectioners' and butchering plants, it is necessary to have on hand large quantitie. of ice reduced to the proper degree of fineness, in order that the materials which are being used may be kept at a proper temperature for working.

It is the object of my present invention to devise a novel ice shaving machine wherein the number of parts employed are reduced to a minimum and still provide a compact construction by the employment of which a large amount of ice may be quickly reduced to a desired degree of fineness.

With the above and other objects in view which will more clearly hereinafter appear in the detailed description, my invention consists of a novel ice shaving machine wherein the casing and ice shaving mechanism are constructed in a novel manner, so that the ice will not be liable to be moved upwardly away from the shaving element during the operation.

It further consists of a novel construction of casing and a novel construction and arrangement of cutting blades, and of a drum or cylinder for supporting said blades.

It further consists of other novel features of construction, all as will be hereinafter fully set forth.

For the purpose of illustrating my invention, I have shown herein one embodiment thereof since the same will give in practice advantageous and satisfactory results, although it is to be understood that the various instrumentalities of which my invention consists may be variously arranged and organized, and that my invention is not limited to the precise arrangement and organization of these instrumentalities as herein shown and described.

Figure 1 represents a side elevation of an ice shaving machine embodying my invention. Fig. 2 represents an end elevation thereof, a portion of the base having been removed. Fig. 3 represents a sectional elevation of my device, a portion of the base having been removed. Fig. 4 represents a sectional elevation of a portion of the blade carrying drum.

Similar numerals of reference indicate corresponding parts in the figures.

Referring to the drawings:—1 designates the base of an ice shaving machine embodying my invention and which may be constructed in any desired manner and be formed by a table, bench or the like.

2 designates standards secured to the base or any desired support by means of fastening devices 3 of any desired type. The upper ends of the standards 2 are integral with or secured to a head 4, which is secured to the side of the casing 5 by means of fastening devices 6. The head 4 has journaled therein a shaft 7, to which is secured an actuating lever 8 of any desired type, and which is preferably provided with a grasping portion 9. The shaft 7 passes through the casing 5 and is journaled in a boss 10 on the opposite side of said casing. 11 designates a drum provided with a hub 12 in which said shaft 7 has a driving fit or is fixed in any desired manner, and the parts are maintained in assembled position by means of the pin 13, which passes through the shaft 7 in close proximity to the end of the hub 12. The drum 11 is provided with a closed end 14 and is provided in its periphery with a desired number of laterally extending slots 15, having an inclined wall 16 on one side thereof to form a backing for a cutting element 17, which consists in the present instance of a cutting blade provided with spaced teeth 18 and having its rear portion deflected at an angle in order that it will engage with the inner periphery of the drum 11, as best seen in Fig. 4, and to which it is secured by fastening devices 19, which preferably consist of rivets.

The casing 5 is formed in a novel manner in order to prevent the upward movement of the ice during the operation of cutting or shaving the same, it being seen that the casing at its upper end is inwardly deflected as at 20, thereby forming an unobstructed restricted throat or opening 21, and one wall of the casing is then curved as at 22, forming a shoulder, while the opposite wall thereof is substantially straight, as at 23, and is then curved outwardly and downwardly, as at 24, in order to form a guard for the cutting blades so that the hands of the operator will not be liable to

move into contact therewith during the operation.

The curved wall 22 on one side of the casing terminates as at 25 and is cut away as indicated at 26 and 27 to form a discharge opening, in order that the ice which has been shaved may pass from the open end of the drum, as seen at 28 in Fig. 3.

The operation of my novel ice shaving machine will now be readily understood by those skilled in this art. The shaft 7 is located eccentric to the curved wall 22 so that the ice passing into the chamber 29 will be wedged therein and the tendency of the cutting blades will be to move the ice downwardly, and the shoulder formed by the wall 20 and the wall 22 will prevent the upward lifting of the ice, and the necessity is eliminated of the operator pressing down with his hand upon the ice or employing a weight or spring-pressed plunger to maintain the ice in proper position with respect to the knives or cutting blades of the rotating drum. The ice, as it is shaved, passes through the slot 15 into the interior of the drum and is discharged from the drum at 28 into a desired receptacle placed therebeneath.

Special attention is directed to the novel manner in which the ice is automatically maintained in proper position within the chamber 29 to be acted upon by the cutting elements. Attention is also directed to the novel construction and arrangement of the drum, and the novel manner of securing the serrated blades with respect thereto.

It will be apparent that an ice shaving machine constructed in accordance with my present invention utilizes but a minimum amount of space and can be very economically manufactured and is not liable to get out of order. Furthermore, the machine can be readily taken apart and cleaned, thereby enabling one to maintain the same in a sanitary condition at all times and the drum may be readily removed and the blades sharpened and replaced in accordance with the requirements met with in practice.

It will now be apparent that I have devised a novel and useful construction of an ice shaving machine, which embodies the features of advantage enumerated as desirable in the statement of the invention and the above description, and while I have, in the present instance, shown and described a preferred embodiment thereof which will be found in practice to give satisfactory and reliable results, it is to be understood that the same is susceptible of modification in various particulars without departing from the spirit or scope of the invention or sacrificing any of its advantages.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. An ice shaving machine, comprising a casing having the side walls thereof at their upper ends inwardly deflected to form an unobstructed restricted throat, one of said side walls then extending downwardly substantially vertically and then curving outwardly and downwardly, the opposite side walls of said vertical portion being outwardly and downwardly curved thereby forming a shoulder and an eccentric chamber beneath said shoulder, and an ice shaving cylinder journaled in said casing eccentrically to the curvature of the side wall located opposite to the vertically extending side wall portion.

2. An ice shaving machine, comprising a casing having the opposite side walls thereof inwardly deflected at a point beneath their upper ends, one of said side walls being extended substantially vertically, then curving outwardly and downwardly to form a guard, the other of said side walls opposite said vertical portion curving outwardly and downwardly from the inwardly deflected portion thereof, thereby forming a shoulder and an eccentric chamber beneath said shoulder, one of the ends walls of said casing extending substantially parallel with the other end wall and being cut away at its lower end to form a discharge opening, and an ice shaving element journaled in said casing eccentrically to the curved side wall opposite said vertical portion and within the guard formed by the opposite side wall.

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Witnesses:
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