

June 10, 1930.

A. O. GOLDSTEIN

1,763,512

ICE SHAVING MACHINE

Filed Dec. 21, 1928

2 Sheets-Sheet 1

Fig. 1.

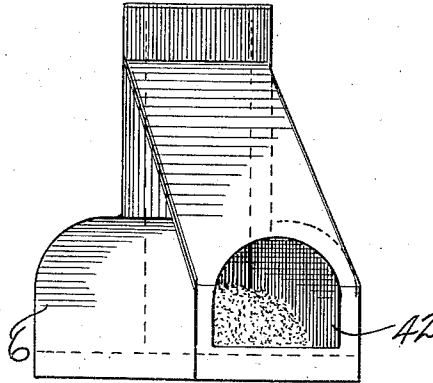
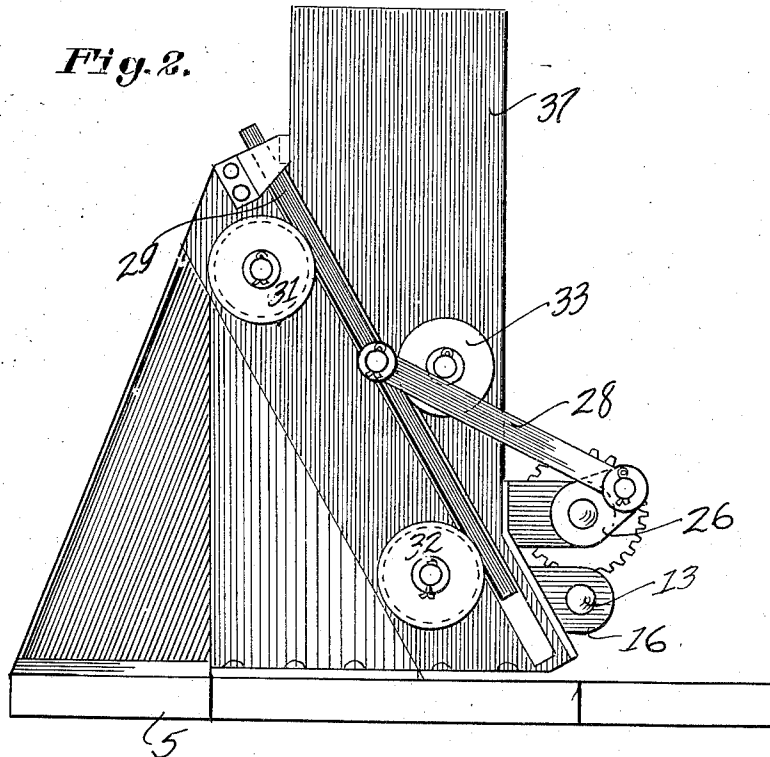


Fig. 2.



Inventor,

ADOLPH O. GOLDSTEIN

By *Victor J. Evans*
attorney.

June 10, 1930.

A. O. GOLDSTEIN

1,763,512

ICE SHAVING MACHINE

Filed Dec. 21, 1928

2 Sheets-Sheet 2

Fig. 3.

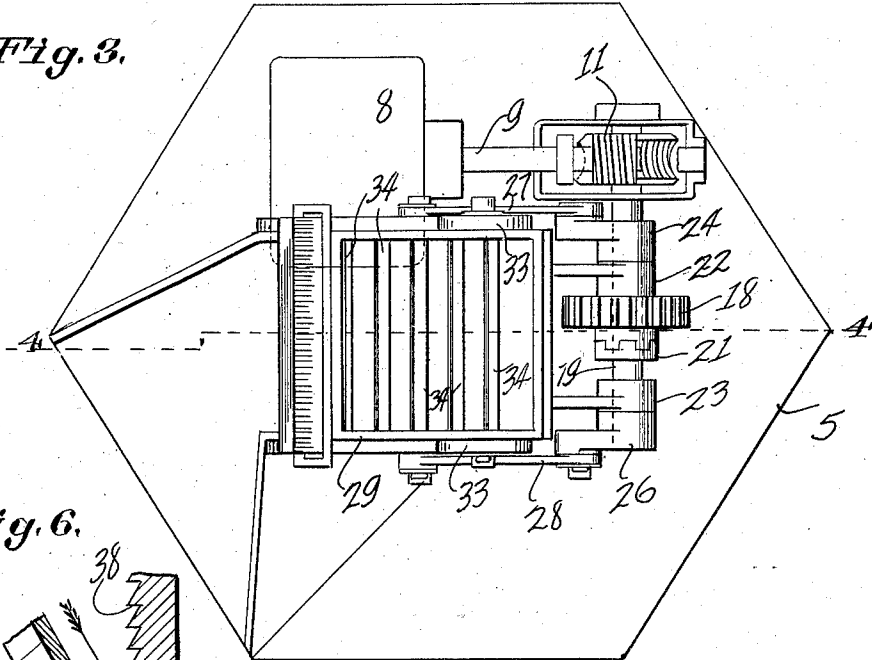


Fig. 6.

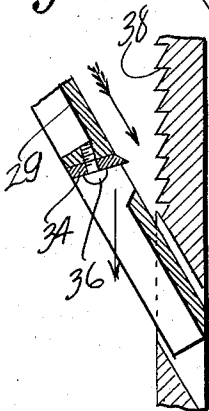


Fig. 4.

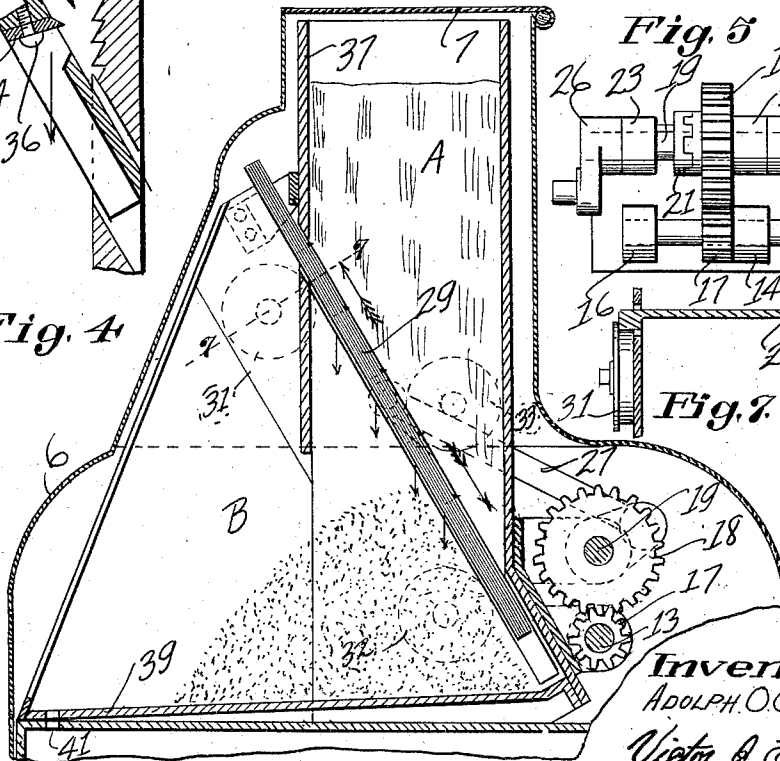


Fig. 5.

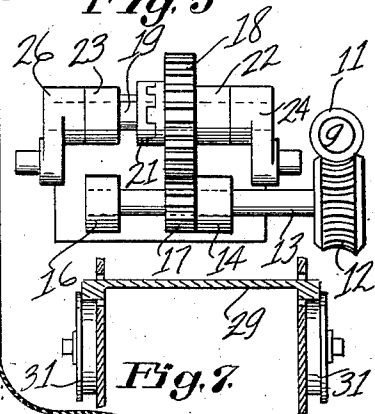


Fig. 7.

Inventor.
ADOLPH O. GOLDSTEIN
Victor J. Evans
By Attorney.

UNITED STATES PATENT OFFICE

ADOLPH ODDIE GOLDSTEIN, OF SANTA CRUZ, CALIFORNIA

ICE-SHAVING MACHINE

Application filed December 21, 1928. Serial No. 327,580

This invention relates to improvements in ice shaving machines, and has particular reference to an economically constructed and unique arrangement of the cutting or shaving mechanism that will assure a positive shaving of the ice to the proper degree of fineness.

The principal object of the present invention is to provide a novel ice shaving machine that will serve to positively and effectively shave ice irrespective of the size of the piece or block inserted in the apparatus.

A further object of the invention is to so construct the machine that the inserted ice will always be in contact with the cutting blades, thus assuring a quick and positive shaving action with each stroke of the cutting blades and eliminating any possibility of the ice being moved upward and away from the shaving means during the operation of the machine.

A still further object is to produce a shaving mechanism that will effectively shave the ice to a degree of fineness that will simulate snow and thus realize an edible product which is readily scraped up and over which any flavor may be sprayed or otherwise placed.

A still further object is to provide an apparatus of the character described which is simple in construction, economical to manufacture, positive in operation, strong, durable and highly ornamental and artistic in appearance.

Other objects and advantages will be apparent during the course of the following description.

In the accompanying drawing forming a part of this specification, and in which like numerals are employed to designate like parts throughout the same—

Figure 1 is a side elevation of the machine;

Figure 2 is an enlarged side elevation with the housing removed, showing the manner in which the scraper travels upon a plurality of rollers;

Figure 3 is a top plan view of Figure 2;

Figure 4 is a vertical cross section taken on the line 4—4 of Figure 3;

Figure 5 is a front elevation of the driving mechanism;

Figure 6 is an enlarged fragmentary detail view showing the manner in which the scraping mechanism operates, and

Figure 7 is a fragmentary view taken on the line 7—7 of Figure 4, showing the manner in which the scraper element rides upon the rollers.

In the accompanying drawings wherein for the purpose of illustration is shown a preferred embodiment of my invention, the numeral 5 designates the base of the device which is preferably hexagonal in shape, while the numeral 6 designates a housing that is placed over the base and is adapted to enclose all the parts of the device. The housing is preferably enameled in colors and provided with imitation snow or such a preparation for the purpose of enhancing the attractiveness of the device.

As illustrated in Figure 4, the numeral 7 designates a hinged cover for the receptacle 6 which cover permits a block of ice to be placed within the machine.

Mounted upon the base 5 is a motor 8 which motor drives a shaft 9 having a worm 11 formed thereon. This worm in turn drives a worm gear 12 mounted upon a shaft 13 carried in bearings 14 and 16 positioned on the side of the machine. A gear 17 is secured to the shaft 13 and meshes with a driving gear 18 and is freely rotatable upon a shaft 19 to which a clutch 21 is keyed. This clutch is adapted to engage the gear 18 so as to impart rotation from the gear to the shaft. Bearings 22 and 23 are also formed upon the side of the machine and serve to journal the shaft 19. Crank arms 24 and 26 are secured to the shaft 19. These crank arms are adapted to reciprocate connecting rods 27 and 28 respectively, which connecting rods are in turn connected to rectangular frame 29 which is adapted to ride upon grooved wheels 31 and 32 carried upon opposite sides of the machine and held thereagainst by grooved wheels 33. This frame carries a plurality of scraping knives

34 which may be of any desired number, one of which is shown in Figure 6 as being secured to the frame 29 as by threaded bolts 36. This frame 29 is adapted to reciprocate diagonally through a vertical ice container 37 one face of which is serrated as shown at 38 (see Figure 6). This tends to prevent the ice shown at A, Figure 4, from moving upwardly upon the back stroke of the scraping knives. The ice which is scraped from the portion A falls into a receptacle B which has an inclined bottom 39 with a drain opening 41 which is adapted to drain any moisture to a remote point. Access is gained to the receptacle B through an opening 42 formed in the housing 6.

It will thus be seen that I have produced a device which will accomplish all the objects above set forth and that when the motor is operated the frame 29 will reciprocate back and forth and gradually scrape from the surface of the cake a product which clearly resembles snow. This product is deposited in a suitable receptacle in the bottom of the housing and may be removed from time to time as the occasion demands.

With the present device I have found that all waste of ice is eliminated for it is obvious that varying sizes of blocks or small pieces of ice can be readily placed in the receptacle and a positive shaving action will be accomplished, irrespective of the size of the ice.

It is to be understood that the form of my invention herewith shown and described is to be taken as a preferred example of the same and that various changes relative to the material, size, shape and arrangement of parts may be resorted to without departing from the spirit of the invention or the scope of the subjoined claims.

Having thus described my invention, I claim:—

1. In a device of the character described, a base, a housing positioned on said base, an ice receptacle vertically positioned within said housing, a rectangular frame positioned within said housing and extending diagonally through said ice receptacle and forming a support for a block of ice, means for supporting said frame so that the same may be freely reciprocated and a plurality of scraping elements carried by said frame for the purpose of scraping small particles of ice from a cake of ice placed in said ice receptacle.

2. In a device of the character described, a base, a housing adapted to be positioned on said base, an ice receptacle positioned on said base, a rectangular frame, a plurality of rollers adapted to support said rectangular frame in an inclined position with respect to said ice receptacle and extending through said ice receptacle and forming a support for a block of ice, a plurality of

scraping elements carried by said frame and adapted to engage a block of ice placed within said ice receptacle, and means for reciprocating said rectangular frame in the manner described.

3. A device of the character described, comprising a base, a housing positioned on said base, a receptacle carried in said housing, a frame positioned within said housing and extending through said receptacle, said frame forming a support for a block of ice, means for supporting said frame so that the same may be freely reciprocated, and a plurality of scraping elements carried by said frame and adapted to scrape small particles of ice from the block positioned in said receptacle.

In testimony whereof, I affix my signature.

ADOLPH O. GOLDSTEIN.