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ICE CRUSHER

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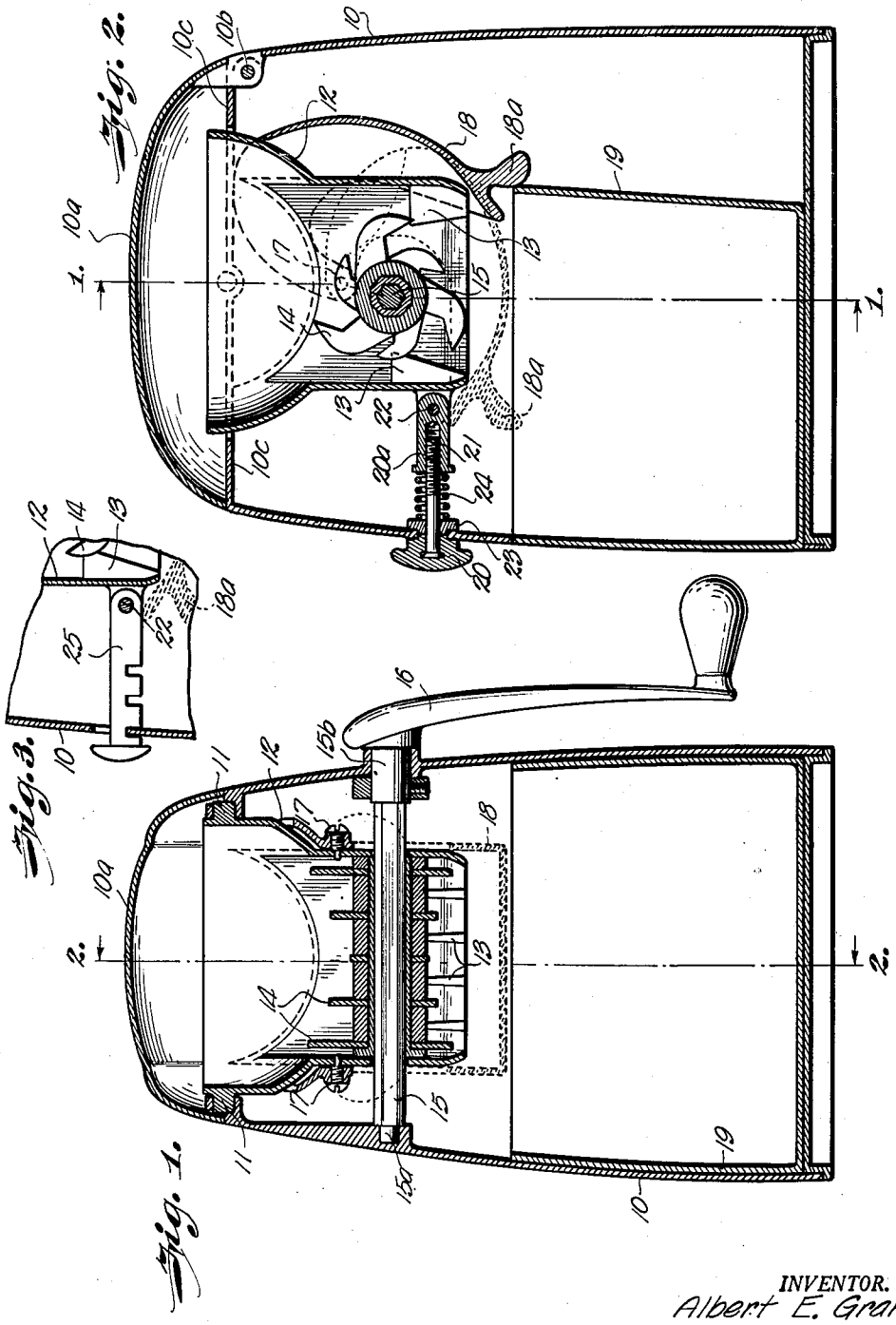


Fig. 2.

Fig. 3.

Fig. 1.

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ICE CRUSHER

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2 Claims. (Cl. 241—100)

This invention relates to improvements in ice crushers and refers more particularly to an ice crusher in which the crusher members are adjustable to produce ice particles or pieces of ice of the size desired.

The crusher is adapted for the preparation of crushed ice for all sorts of cold beverages, ice packs or wherever crushed ice is needed.

One object of the invention is to provide an ice crusher which is small, compact and rugged in construction and completely enclosed to prevent ice particles from being scattered during the ice crushing operation.

Another object is to provide a crusher construction which is portable and may be easily moved from place to place convenient to the person who is serving the beverage and at the same time offering a crusher which is attractive in appearance.

Other and further objects of the invention will appear from the following decription.

In the accompanying drawing which forms a part of the specification and is to be read in conjunction therewith, and in which like reference numerals are used to indicate like parts in the various views,

Fig. 1 is a front sectional view of an ice crusher embodying the invention taken along the line 1—1 in Fig. 2 in the direction of the arrows,

Fig. 2 is a side sectional view taken along the line 2—2 in Fig. 1 in the direction of the arrows,

Fig. 3 is a detail of a modified type of link for adjusting the position of the hopper.

The crusher comprises an upright standard 10 in the upper portion of which is pivoted on trunnions 11 an ice hopper 12. Within the hopper and on opposite sides thereof are a plurality of fins 13 which extend from the sides of the hopper in the path of crusher members or claws 14. The crusher members are mounted upon a rotating shaft 15 which shaft extends with clearance through the hopper. Shaft 15 has bearings 15a and 15b in the standard and is rotated by means of a handle 16 attached to the shaft on the outside of the standard. The bottom of the hopper is open and beneath it pivoted at 17 is a dump receptacle 18. Below the open bottom of the hopper and fitted into the side of the standard is a cup 19. The front lip of the cup as it is slid into the standard contacts the lip 18a of the pivoted receptacle, raising it to full line position as shown in Fig. 2 so that the crushed ice will fall directly into the cup. When the cup is removed from the standard the weight of the receptacle rotates it into the dotted line position beneath the hopper and prevents ice particles or water from dripping into the bottom of the standard.

In operation the lid 10a pivoted at 10b on the standard is opened and chunks of ice placed in the open top of the hopper 12. The thumb screw 20 which is threaded into a link member 21 pivoted at 22 to the hopper is adjusted to obtain proper spacing of the fins 13 with respect to crusher members 14. By advancing or retarding the screw 20a the hopper is moved upon its pivot 11. Between the link 21 and a washer 23 against the standard is a buffer spring 24. Adjustment of the screw 20a as suggested positions the fins 13 and crushers 14 to crush the ice into proper size. In the modified form of construction shown in Fig. 3 screw 20a is replaced by a notched link 25 which hooks into the lower edge of an aperture in the standard in any desired position, the lengthening or shortening of the link moves the hopper and adjusts the distance between the cutters or fins 13 and crushers 14.

After the ice is placed in the hopper and the hopper adjusted the handle 16 is rotated. Rotation of the crusher members coacting with the fins on the sides of the hopper crushes the ice which falls into cup 19. When the cup is filled it is withdrawn from the standard and dumped into the container in which it is to be used. When the cup is withdrawn from the standard the dump receptacle 18 moves on its pivot into the dotted line position and catches small ice particles or water which drips from the hopper or crushing members. When the cup is reinserted the front lip of the cup engages the lip 18a on the pivoted dump receptacle and moves it from below the hopper. Surrounding the upper part of the hopper is a ledge or plate 10c which prevents ice particles from escaping from the edges of the hopper and falling into the bottom of the standard.

It will be seen that the objects of the invention have been accomplished, that there has been provided a convenient sized portable ice crusher of rugged construction easily adjusted to crush ice in any desired size for use in beverages and for ice packs. The crusher is clean, compact and effectively prevents scattering of ice particles when used.

From the foregoing it will be seen further that the invention is one well adapted to attain the ends and objects herein set forth together with other advantages which are obvious and which are inherent to the structure. It will be understood that certain features and subcombinations are of utility and may be employed without refer-

ence to other features and subcombinations. This is contemplated by and is within the scope of the claims.

As many possible embodiments may be made of the invention without departing from the scope thereof it is to be understood that all matter herein set forth or shown in the accompanying drawing is to be interpreted as illustrative and not in a limiting sense.

Having thus described my invention, I claim:

1. An ice crusher comprising in combination a standard, an open bottom hopper pivoted adjacent its top in the upper portion of the standard, fixed crushing fins in the hopper, a shaft bearing in the standard and extending through the hopper, rotatable crushing elements mounted on the shaft and coacting with the fins in the hopper to crush ice, a substantially horizontal adjustable link between the standard and the lower open end of the hopper for shifting the hopper on its pivot to vary the relationship between the crushing elements and fins.

2. An ice crusher as in claim 1, including a removable cup beneath the hopper, a gravity dump receptacle within the standard and pivoted on the hopper beneath the hopper pivot, said receptacle having means engageable by the lip of the cup to rotate the receptacle from the bottom of the hopper when the cup is below the hopper and permit rotation of the receptacle upon its pivot to cover the bottom of the hopper when the cup is removed.

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