

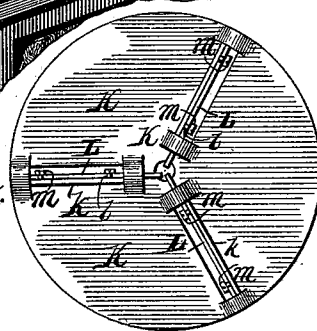
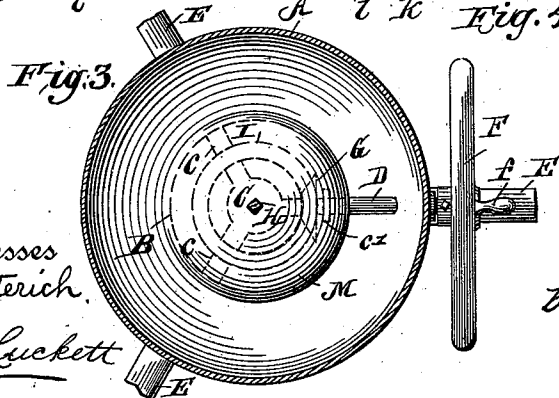
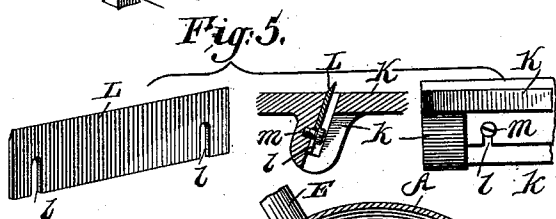
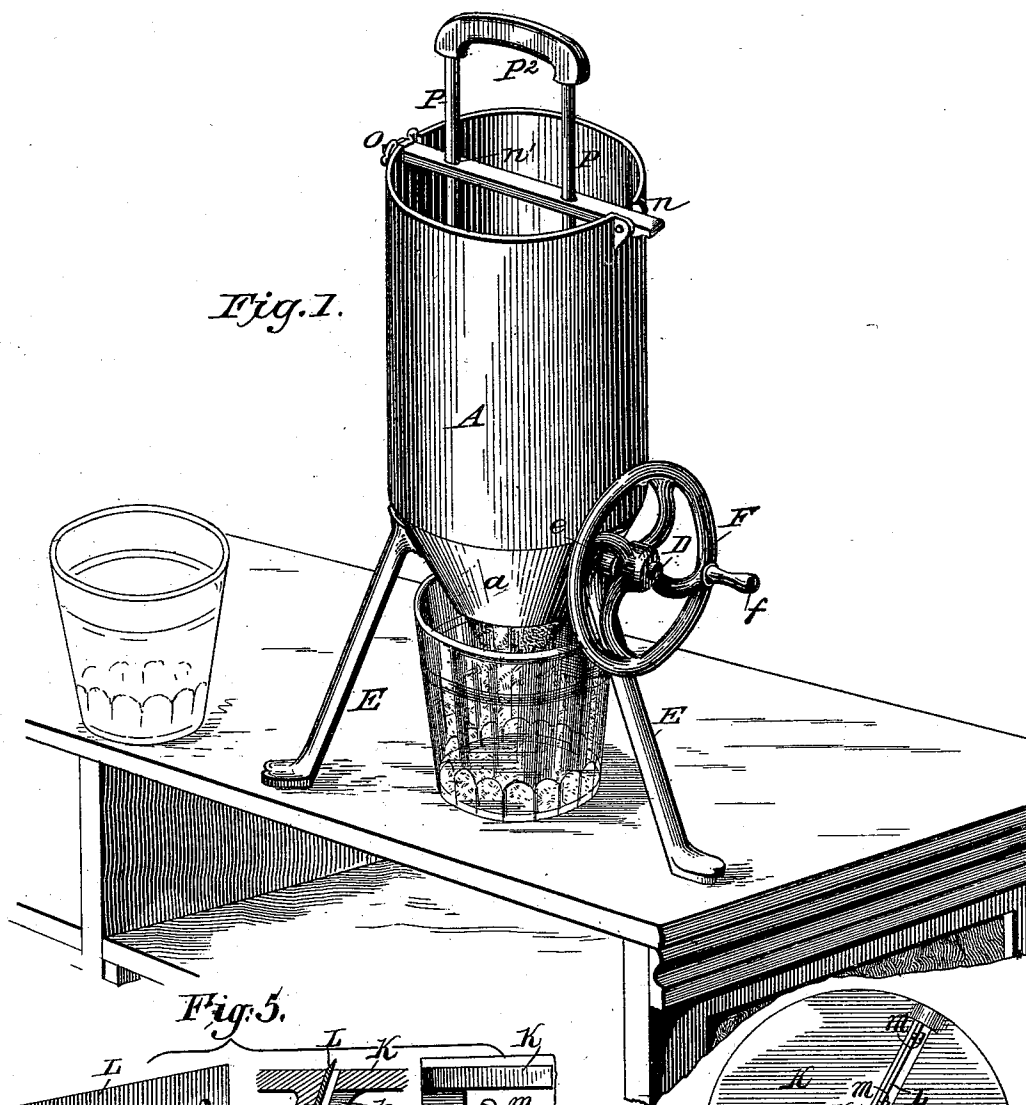
(No Model.)

2 Sheets—Sheet 1.

J. L. HANAHAN.
ICE SHAVER.

No. 555,002.

Patented Feb. 18, 1896.



Witnesses
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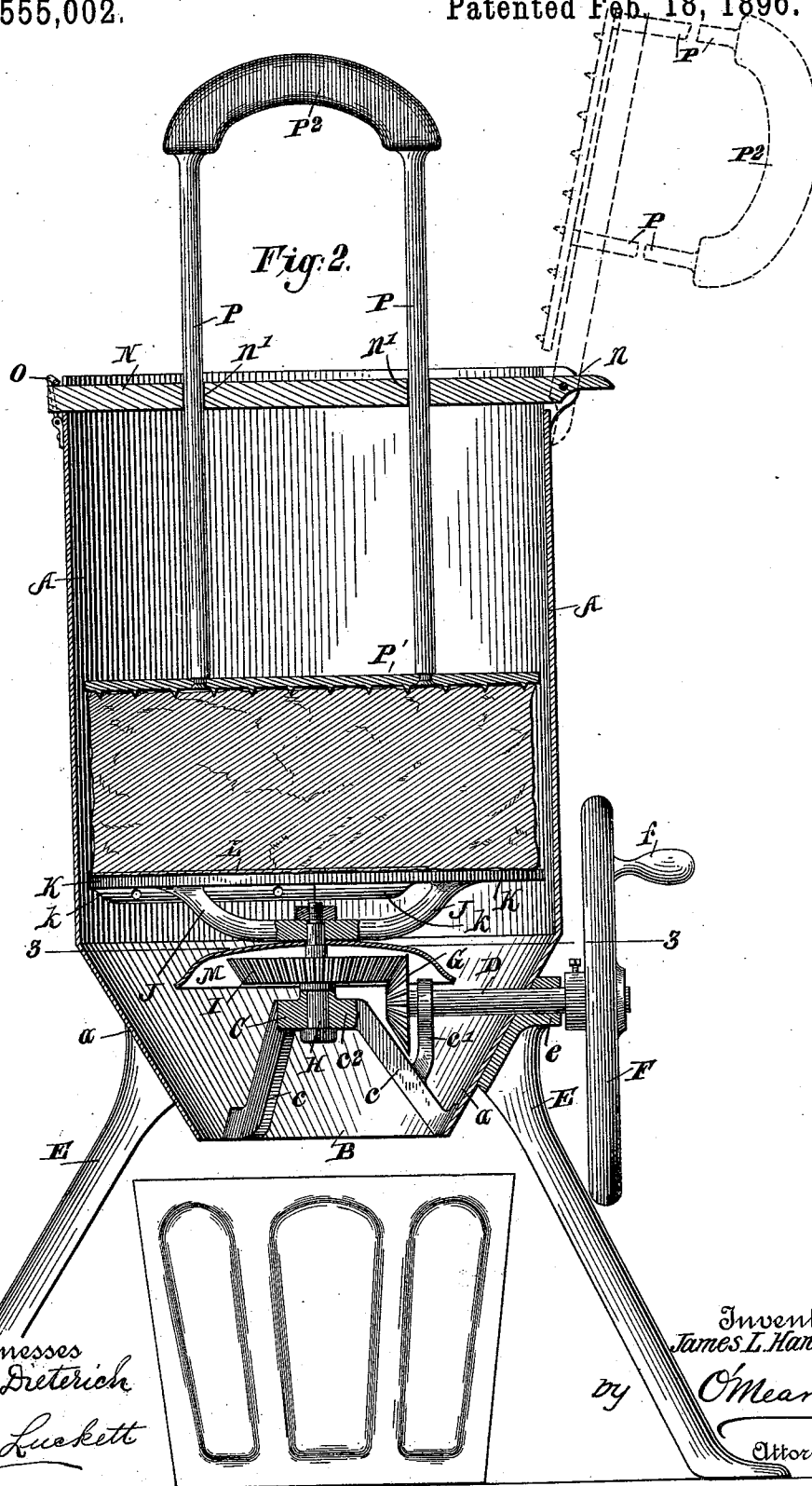
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2 Sheets—Sheet 2.

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Patented Feb. 18, 1896.



UNITED STATES PATENT OFFICE.

JAMES L. HANAHAN, OF COLUMBIA, SOUTH CAROLINA, ASSIGNOR OF ONE-HALF TO A. M. WITHERS, OF SAME PLACE.

ICE-SHAVER.

SPECIFICATION forming part of Letters Patent No. 555,002, dated February 18, 1896.

Application filed April 23, 1895. Serial No. 546,873. (No model.)

To all whom it may concern:

Be it known that I, JAMES L. HANAHAN, residing at Columbia, in the county of Richland and State of South Carolina, have invented a new and Improved Ice-Shaver, of which the following is a specification.

My invention is in the nature of an improved ice-shaving machine suitable for soda-dispensing counters; and it primarily has for its object to provide a machine of this kind of a very simple and inexpensive nature and which will be very effective in its operation.

My invention also has for its object to provide an ice-shaver having the parts so arranged and assembled that the same will present a neat, compact, and ornamental appearance and in which the cutter devices are operated by suitably-arranged gearing, whereby the labor necessary to operate the shaver is greatly reduced and the more conveniently effected.

Furthermore, my invention has for its object to provide a shaver having the cutter-blades so arranged that they can be quickly adjusted or removed for sharpening and in which the cutter-blade and the ice presser or follower devices are so constructed that there will be no loss of ice and whereby all of it will be reduced to the appearance of snow without lumps, &c.

With other minor objects in view, which will hereinafter be referred to, my invention consists in such novel features of construction and peculiar combination of parts, such as will be first described in detail, and then be pointed out in the appended claims, reference being had to the accompany drawings, in which—

Figure 1 is a perspective view of my improved ice-shaving machine. Fig. 2 is a vertical longitudinal section of the same, the presser or plunger being shown thrown back in dotted lines. Fig. 3 is a horizontal section taken on the line 3 3 of Fig. 2. Fig. 4 is a detail view illustrating the cutter-disk and the blades connected therewith, and Fig. 5 is a detail view illustrating some of the parts detached.

In its practical construction my improved ice-shaving machine comprises a cylindrical body A, the bottom of which is contracted or

dished, as at *a*, and provided with a discharge-opening B.

C indicates a skeleton casting or frame having leg portions *c c*, whereby it is secured to the bottom *a*, and a bracket portion *c'*, which forms a bearing for the drive or power axle D, which axle passes through the bottom *a* and seats in an exterior bearing *e* formed on one of the leg-castings E, three of such legs in practice being provided, as clearly shown in Fig. 1. Upon the outer end of the axle D is fixedly held the power-wheel F, which has a crank-handle *f*, while on the inner end of such axle is secured a small pinion or gear G.

In a vertical bearing *c²* formed in the skeleton casting or frame C is journaled the stub-shaft H, which carries a large bevel-gear I, which meshes with the pinion or gear G, as most clearly shown in Fig. 2.

Upon the upper end of the shaft H is fitted to turn therewith a spider-frame J, to which is connected the cutter-blade-carrying disk K, the construction of which is most clearly shown in Figs. 4 and 5, by reference to which it will be seen the disk K has a series (preferably three) of radial pockets *k k*, in which are adjustably held the cutter-blades L, one being shown in detail in Fig. 5. Said blades have notches *l* to fit on the set-screws *m*, which serve to hold the blades securely in the said disk K.

M indicates a hood or shield portion which is secured to the shaft H, being clamped thereto by the spider-frame J, such hood serving to deflect the shaved ice toward the sides of the dished bottom of the cylinder and prevents the same getting among the gear devices.

N indicates a cross-bar hinged at one end to the top of the cylinder A at one side, and adapted to fit down onto the opposite side of the said cylinder with which it is normally held in a locked engagement by the bail-catch O, as shown. The rear or hinge end of the bar N is extended, as at *n*, which forms a stop portion to limit the outward swing of such bar when it is open or swung back (see dotted lines, Fig. 2) to admit of the insertion of the ice into the receiver A. The bar N has two apertures *n' n'* through which pass the vertically-movable rods P P carrying the pressure-disk P' at their lower ends, said disk being

provided with teeth or serrations on its lower face. The upper ends of these rods P P are connected by means of a cross-head or handle P², by means of which the presser or follower
 5 is moved up or down, as desired, and in practice I prefer to construct said head P² with considerable weight, so that there will always be a constant pressure upon the ice, holding the same down upon the ice, thereby greatly
 10 relieving the operator, as a slight pressure from him during the manipulation of the machine will suffice.

In practice the machine is suitably ornamented and formed to rest on the fountain or
 15 soda counter, it being of such a size that the dispenser back of the counter can conveniently, when necessary, grasp the cross-head P² and press down against the ice with his left hand as he manipulates the crank-handle
 20 with the right.

When it is desired to place ice in the holder or cylinder, the lock-catch is slipped back from the outer end of the bar N and the cross-head P² raised until the disk P' strikes the
 25 bar N, which then swings back until it reaches the position shown in dotted lines in Fig. 2, where it is held by gravity.

It is manifest that by providing an ice-shaving machine constructed as described the
 30 shaving action can be conveniently, quickly and effectively accomplished without wasting any ice whatever, in that, should the ice be cut down to a small thin piece, the next quantity placed in the holder will press it sufficiently to permit of its being shaved up with-
 35 out crushing it into lumps.

It will also be observed that the several parts are so constructed and arranged that they can be easily separated and repaired
 40 when necessary, the cutter-disk being fitted on the stub-shaft in such a manner that it can be almost instantly removed or set in position.

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

1. In an ice-shaver, the combination with a
 45 body portion provided with a shaving appliance in the bottom thereof, of a guide-bar pivoted to the top of the body portion and having an extended end, such as n, the apertures in
 50 said bar intermediate its ends, the rods passing therethrough, the presser-disk upon their lower ends, the weighted cross-head at their upper ends, and the locking-bail for holding the bar in position while operating the shaver,
 55 the extended end of such bar acting as a stop when said bar is thrown back substantially as shown and described.

2. In an ice-shaver, a body portion having a contracted discharge-opening at its lower
 60 end, said body being supported upon suitable legs or standards, the skeleton casting supported within the contracted portion and comprising the leg portions, a central hub and a vertical bracket portion, an operating-shaft
 65 journaled in said bracket, and one of the supporting-leg members, a drive-wheel mounted upon the outer end of said shaft, a gear mounted upon the inner end, a vertical shaft or stud journaled in the central hub and carrying a gear-wheel, a spider mounted upon
 70 said vertical shaft or stud above the gear, and carrying a rotary shaving device, a protecting hood or shield mounted upon the shaft between the gear and spider, and the weighted
 75 presser or follower arranged within the body portion and the guide-bar, through which said follower passes substantially as shown and described.

JAS. L. HANAIIAN.

Witnesses:

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