

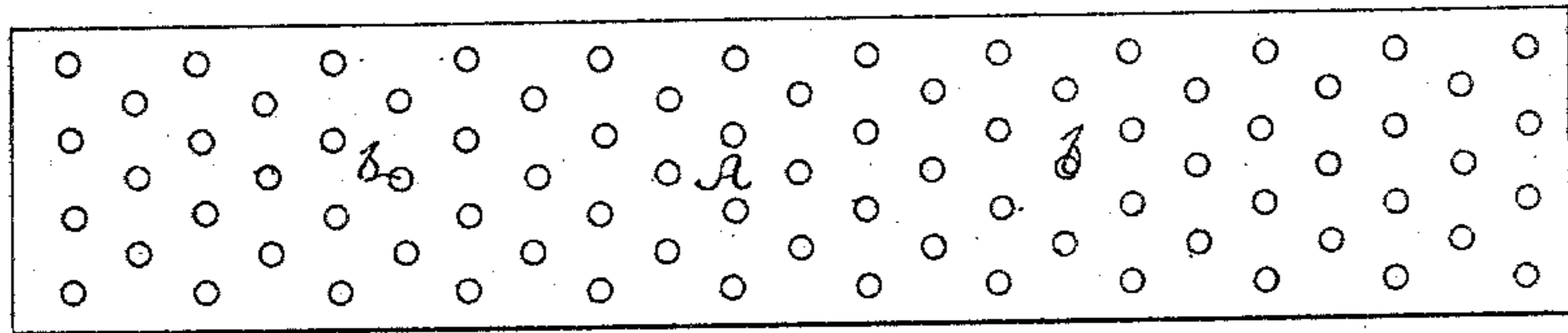
(No Model.)

B. RICE.  
BEER CHIP.

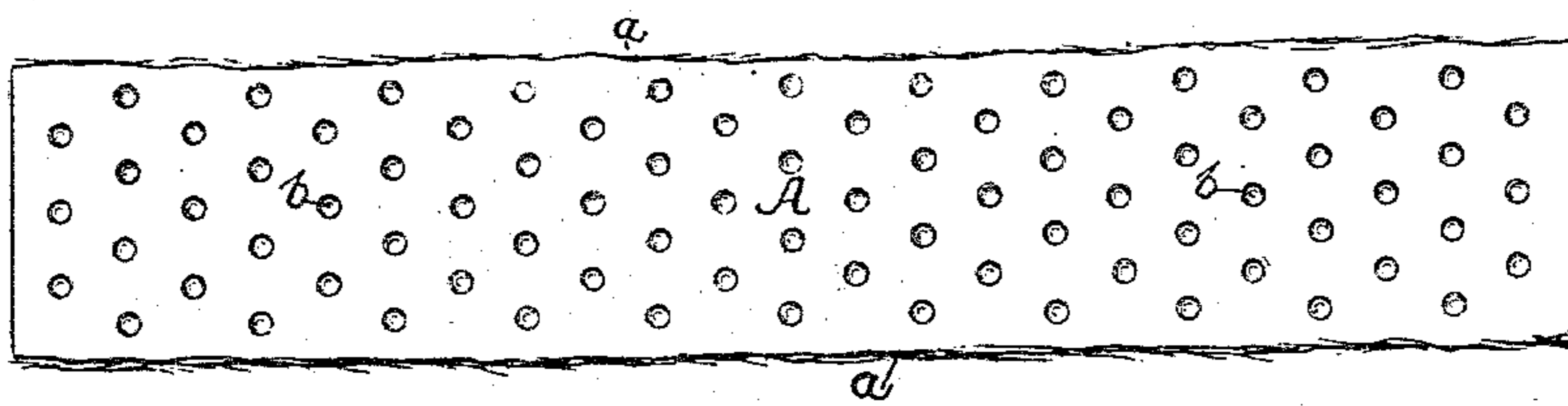
No. 286,637.

Patented Oct. 16, 1883.

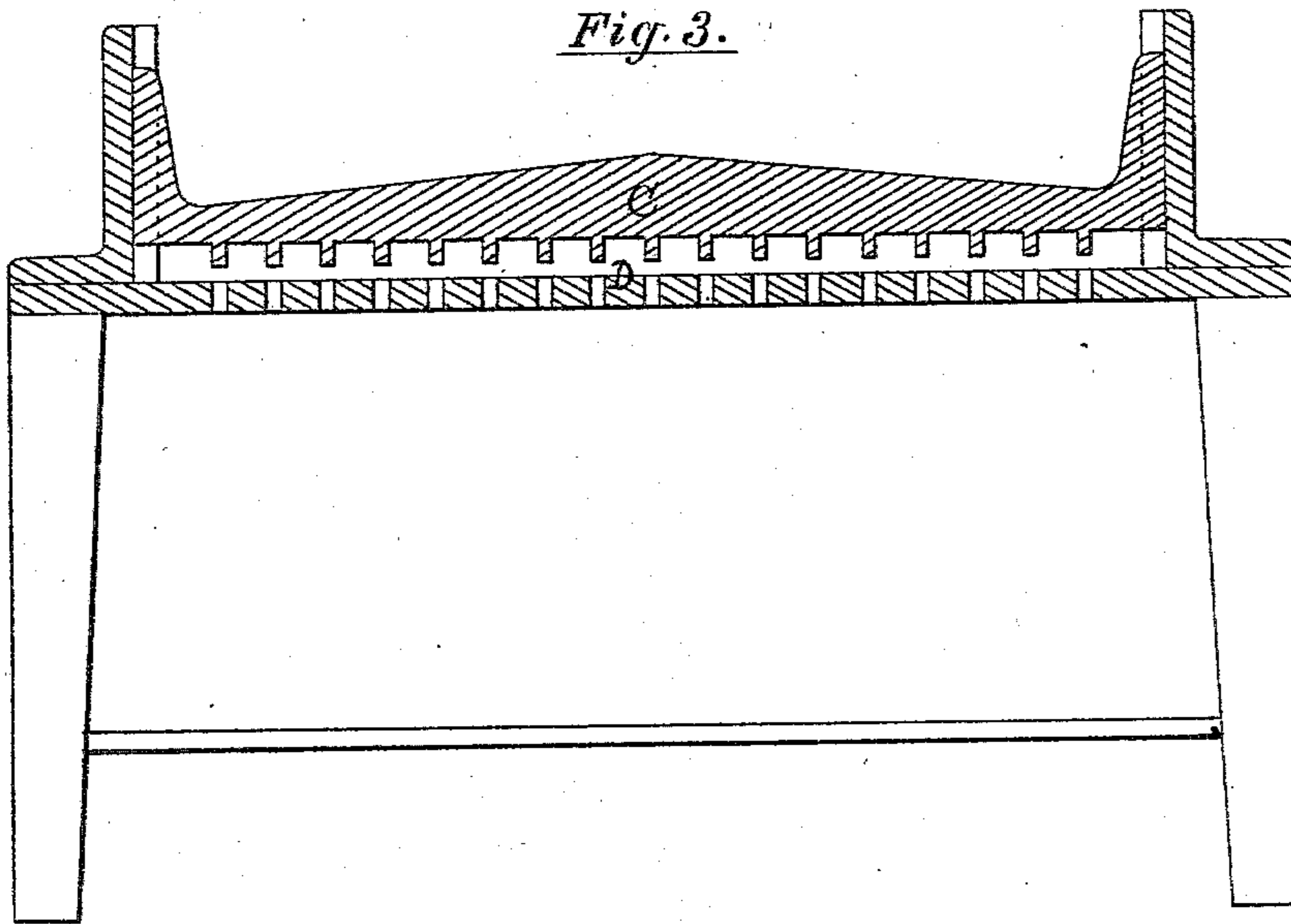
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



WITNESSES:

Moore V. Lohy  
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# UNITED STATES PATENT OFFICE.

BERNARD RICE, OF BROOKLYN, NEW YORK.

## BEER-CHIP.

SPECIFICATION forming part of Letters Patent No. 286,637, dated October 16, 1883.

Application filed July 2, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, BERNARD RICE, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York,  
5 have invented certain new and useful Improvements in Beer-Chips, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention consists in a "beer-chip," so  
10 called, for clarifying the beer, which is perforated for the purpose of increasing its superficies and allowing a circulation of liquid, the holes extending in parallel rows with those  
15 of the other, one row alternating with those also, in producing a roughened splintery edge on the veneer by breaking or splintering the same.

Heretofore beer-chips have been cut to a  
20 certain width by means of saws, knives, or shears, which gives the chip a comparatively smooth edge, to which no particles in the beer will adhere, confining the clarifying functions to be performed solely through the surfaces of  
25 the chip. Should, as sometimes happens, two chips lie one upon the other, (which is never the case with the edges of a chip,) the surfaces of such chips, and consequently the chip itself, will be inoperative and useless as a clarifier in  
30 the vat. In order to meet this deficiency and increase the clarifying properties of the chip in general, I make the edges of the chip splintery, as shown in Fig. 2. A more minute description of forming such splintery edges in  
35 the chip is given hereinafter. It will be seen and admitted that to the splintery edges of a chip impurities in the beer will readily adhere and be retained until cleansed and removed by the action of the water in the revolving washer, thus adding materially to  
40 the clarifying properties of the chip having such splintery edges, and consequently reducing the expense of clarifying by lessening the number of chips requisite. I produce a splintery edge in a chip (easily distinguished from  
45 a chip having a sawed, cut, or any other edge) by breaking or slitting the veneer or wood, instead of sawing or cutting it. This I effect by subjecting the wood or veneer to the action of a pair of cutting-rolls, such as are described in Letters Patent No. 280,952, and

granted to B. Rice, July 10, 1883. The wood or veneer is passed through the said-cutting-rolls, is wedged between the male and female cutters, which breaks or slits the veneer into  
55 chips, producing the desired splintery edges on the chips.

In the accompanying drawings, Figure 1 shows a chip in plan view. Fig. 2 shows a chip with roughened edges. Fig. 3 shows an  
60 apparatus adapted to be used in the manufacture of the chip.

The letter A designates the body of the chip, which may be cut to any usual or suitable  
65 shape, and *b* are its holes or perforations. It will be readily perceived that by these perforations the superficies of the chip are materially increased, while a circulation of the liquid in which the chip is used is allowed to take place, whereby the chip is kept freely  
70 suspended in the liquid, and is not liable to adhere to the other or remaining chips. Said holes *b* are arranged in parallel rows—in this example extending longitudinally to the chip—and those of one row alternate with those of  
75 the other, whereby the weakening effect of the holes is reduced to a minimum. For the purpose of producing the holes *b*, dies C D, Fig. 3, or any other suitable apparatus, may be used, and, if desired, the holes, may be depressed in  
80 the chip without going entirely through it, as indicated in Fig. 2.

I claim—

1. As an improved article of manufacture, a beer-chip perforated, substantially as shown  
85 and described, for the purpose set forth.

2. A beer-chip perforated with holes, with those of one row alternating with those of the other, as shown and described, for the purpose  
90 specified.

3. A beer-chip having broken splintery edges, as shown and described, for the purpose set forth.

4. A beer-chip having its body perforated and the edges roughened, as shown and de-  
95 scribed, for the purpose specified.

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

BERNARD RICE.

Witnesses:

FRANCIS CLARE BOWEN,  
MOORE V. LAHY.