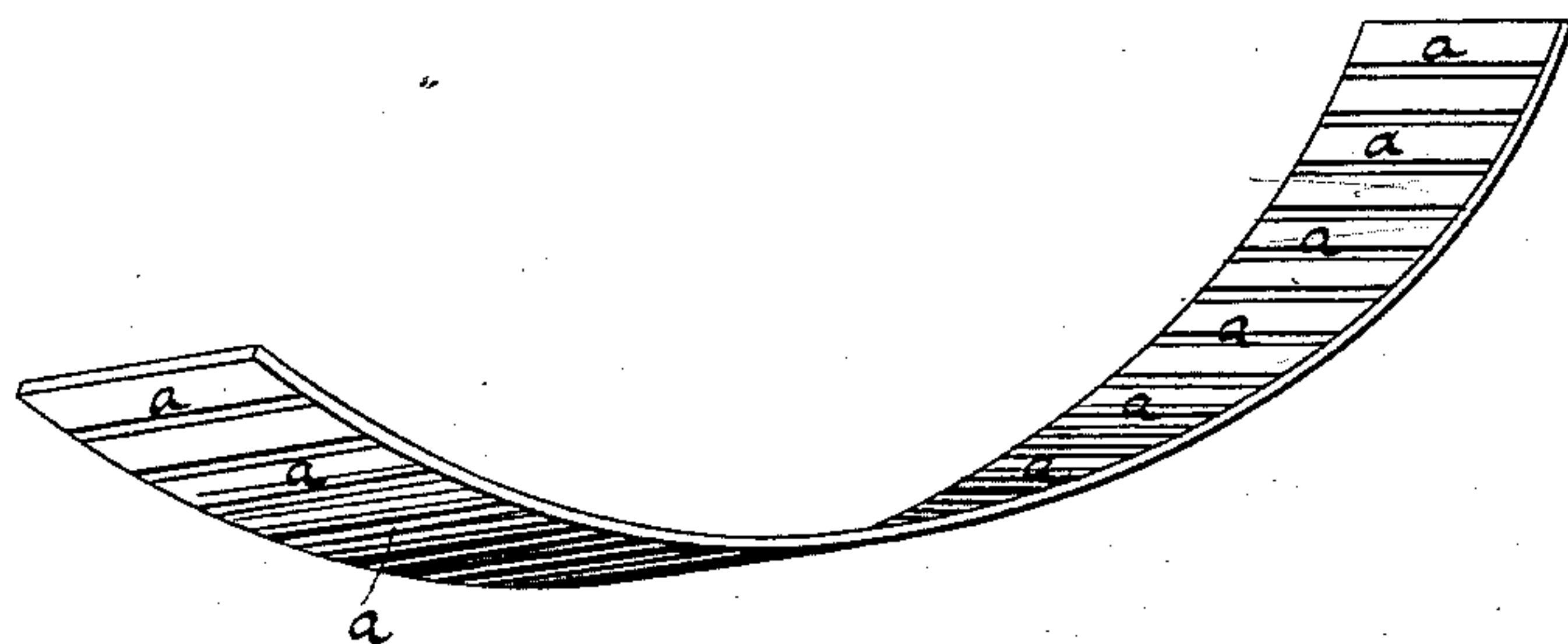


(No Model.)

B. RICE.
BEER CHIP.

No. 279,019.

Patented June 5, 1883.



WITNESSES:

George Gordon Jr.
David Watson

INVENTOR

Bernard Rice
BY *Francis C. Bowen*
ATTORNEY.

UNITED STATES PATENT OFFICE.

BERNARD RICE, OF BROOKLYN, NEW YORK.

BEER-CHIP.

SPECIFICATION forming part of Letters Patent No. 279,019, dated June 5, 1883.

Application filed March 31, 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, have invented certain new and useful Improvements in Beer-Chips, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to that class of beer-chips in which grooves or indentations are made upon the surfaces of the chips for the purpose of increasing their superficies. Prior to my invention said grooves have been impressed upon the surfaces of the chips, as by calendering-rolls; but such method of producing the grooves is objectionable, because when the chips are applied to repeated use the grooves are obliterated by the natural expansion of the wood when exposed to the beer, and hence it is necessary to reindent the chips after each use in order to preserve the desired condition thereof.

My invention is designed to overcome such objection; and to this end it consists in a chip having portions of the wood removed in proper lines across the grain to produce the desired grooves or indentations, as hereinafter more fully described.

The accompanying drawing illustrates a chip having grooved or indented lines across the grain of the wood.

In carrying out my invention I take a sheet or strip of thin wood, preferably a veneer cut from a revolving log of wood in the usual manner, and divide the same in suitable sheets of the proper size or dimensions. I then remove portions of the wood on either or both surfaces of the sheets across the grain of the wood and in lines extending either at a right angle or oblique angle to the grain, said lines being dis-

posed with regularity, so as to produce in the sheets grooves or indentations *a*, serving to increase their superficies. I then cut the sheets into chips of any desired size. For the purpose of removing said portions of the wood I use suitable saws or cutters, which may be arranged in gangs so as to cut a series of grooves in one operation, and, if desired, the wood may be exposed to the action of such tools before it is cut from the log or before the veneer is cut into sheets. The depth of the grooves is about one-half the thickness of the chips, and when the grooves are made in both surfaces of the chips those of one surface should alternate with those of the other.

It will be seen that by making the grooves *a* in the manner described they are rendered permanent, and thus not liable to be obliterated by the expansion of the wood, while the grooves possess the additional advantage of being rough, thus tending to attract the impurities which it is desired to eliminate from the beer by the chips, and, moreover, the chips can be used over and over again after being washed.

What I claim as new, and desire to secure by Letters Patent, is—

As an improved article of manufacture, the beer-chip herein described, having portions of the wood removed in regular lines across the grain on the surface or surfaces of the chip, for producing permanent grooves or indentations, as and for the purpose described.

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

BERNARD RICE.

Witnesses:

FRANCIS CLARE BOWEN,
GEORGE CORBION, Jr.