No. 769,330. PATENTED SEPT. 6, 1904.

T. R. TIMBY.

MACHINE FOR AGING LIQUORS.

APPLICATION FILED JAN. 8, 1904.

NO MODEL. 2 SHEETS—SHEET 1.

Fig. 1.

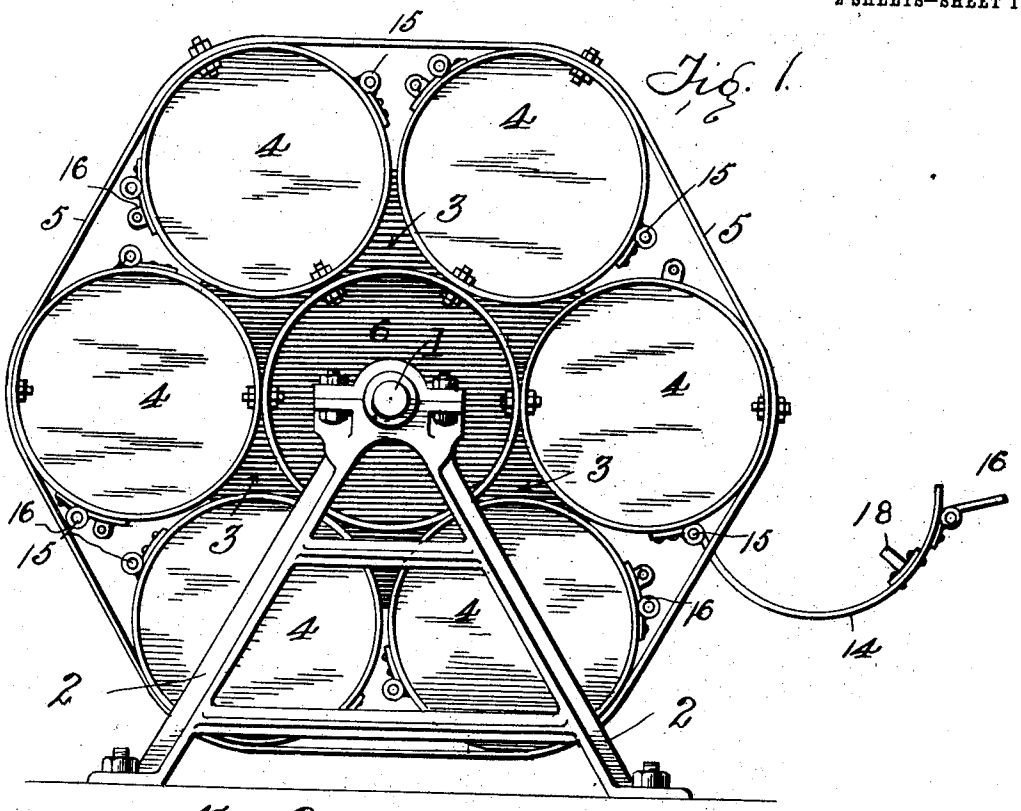


Fig. 2.

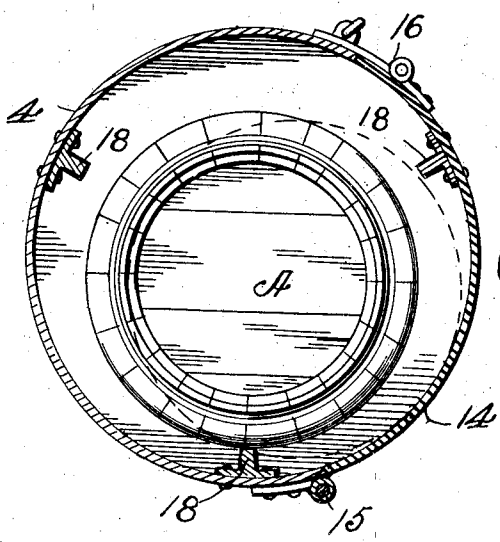
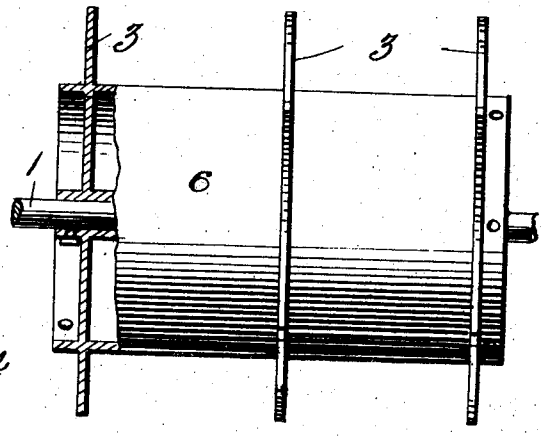


Fig. 3.



Witnesses
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NO MODEL. 2 SHEETS—SHEET 2.

Fig. 4.

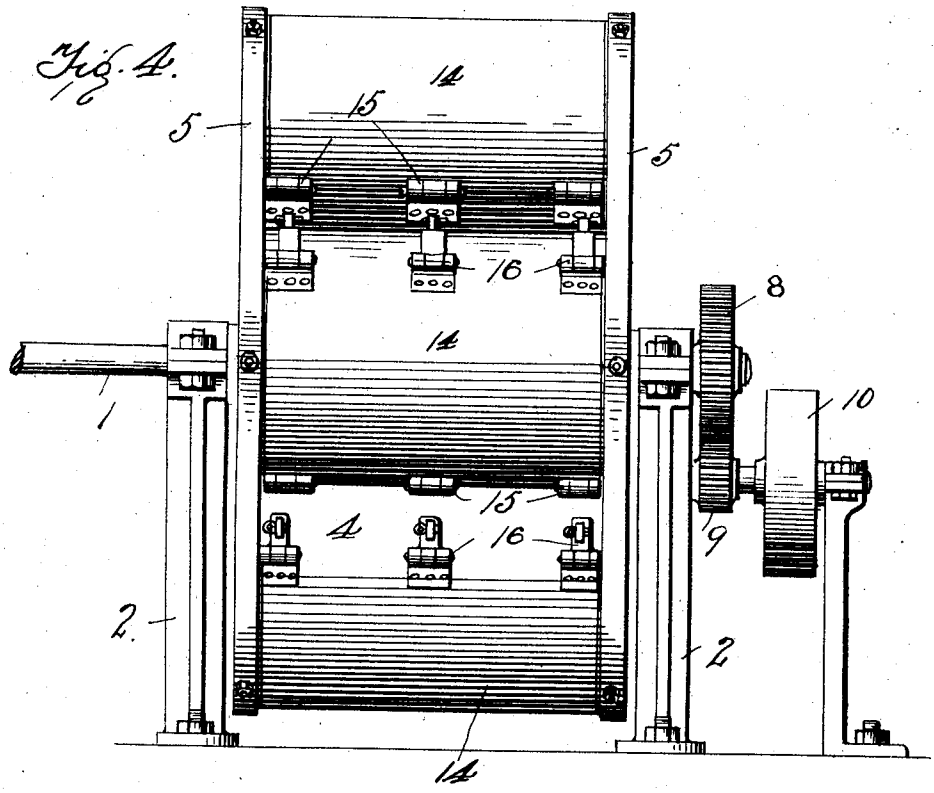
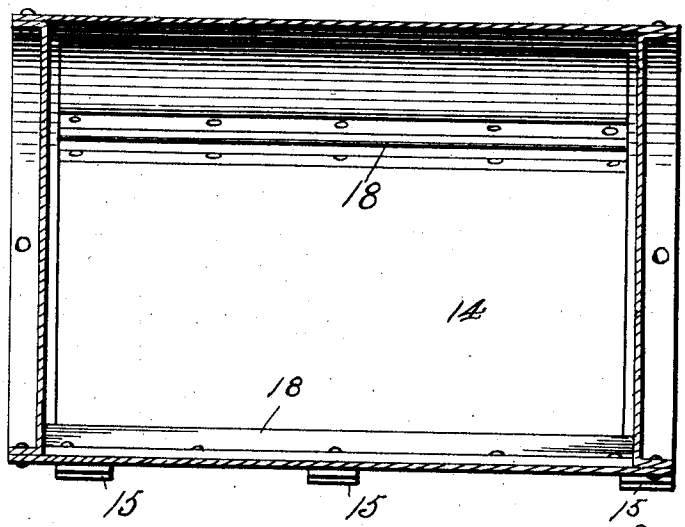


Fig. 5.



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UNITED STATES PATENT OFFICE.

THEODORE R. TIMBY, OF BROOKLYN, NEW YORK.

MACHINE FOR AGING LIQUORS.

SPECIFICATION forming part of Letters Patent No. 769,330, dated September 6, 1904.

Application filed January 8, 1904. Serial No. 188,269. (No model.)

To all whom it may concern:

Be it known that I, THEODORE R. TIMBY, 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 Machines for Aging Liquors, of which the following is a specification.

This invention relates to machines for aging liquors.

The object of the invention is to produce a machine in which liquor in barrels may be kept in constant agitation, the movement being of various kinds, so that some of the volatile parts of the liquor may evaporate through the pores of the wood and the liquor acted on by agitation to hasten the aging process.

It is well known that liquors and wines are often submitted to long voyages at sea for the purpose of improving the quality. A similar effect may be reached in a short time by proper agitation of the casks containing the liquid.

Figure 1 is an end elevation of a machine intended to contain six barrels. Fig. 2 is a section of one of the barrel-receptacles detached, showing barrel inclosed. Fig. 3 is a side elevation, partly in section, of a supporting-spider. Fig. 4 is a side elevation of the machine. Fig 5 is a longitudinal section of one of the barrel-receptacles.

The numeral 1 indicates a central shaft supported in bearings on a frame 2 2 and having a strong truss 6, composed of suitable arms and braces to sustain the barrel-holders 4 4, &c., arranged in a group about the truss, the arms 3 separating and forming cradles or spiders for said barrel-holders. The barrel holders or receptacles 4 are preferably of cylindrical form and are held to the spider-arms 3 3 by surrounding ties or binders 5 5. The number of barrel-receptacles in any group is not very important; but I prefer to have them arranged in groups of even numbers, so that when barrels are replaced in opposite receptacles they will balance each other. With such arrangement not much power is required to drive the machine.

The shaft 1 has a large gear 8 thereon, and this gear is driven from pulley 10 on the same shaft. Any other suitable driving-gear might be employed to give shaft 1 a slow rotation. The receptacles 4 are compelled to rotate with shaft 1. Thus the receptacles turn over with each rotation of the shaft and also travel with the shaft in a circle proportioned to their size and distance from the shaft.

The shaft 1 may be of any desirable length, so that several sets of receptacles or barrel-holders may be attached to a single shaft, and the barrel holders or receptacles 4 may be of such length as to hold a number of barrels. Preferably, however, each holder 4 will be constructed to receive one barrel or cask.

Each receptacle or barrel-holder 4 is provided with a door 14, preferably at the side of the cylinder, so that barrels can be rolled out of and into each receptacle or holder from any suitable platform or skid. The door 14 is held to the barrel holder or receptacle 4 by strong hinges 15, and a hasp or other suitable fastening device 16 is connected to the door, so that each door may be closed and locked, if desired.

Inside the receptacles or barrel-holders 4 ribs or bumpers 18 are arranged. These ribs extend lengthwise of the receptacles and are of such height and such distance apart as may be desired to give the desired jolt to the barrels in the receptacle. This is illustrated in Fig. 2, wherein a barrel A is shown resting on one of the ribs 18 at the bottom of the receptacle. The dotted line shows the outline of the barrel in the position it occupies when it falls off from the rib or bumper 18, as it must do in the rotation of the receptacle 4 in moving with the shaft 1. The barrel A being loose in the receptacle will roll over and over as the receptacle rotates with shaft 1, and on passing over each of the ribs or bumpers 18 a jolt will be given to the barrel and contents. The rotary movement of shaft 1 is so slow that no great centrifugal tendency is developed, and the complex movement of the barrels and of the liquid inclosed therein tends to liberate volatile gases, break up the cellular structure of essential oils in the liquor, and to give to the liquor the effect of "age" after a very short treatment in this

machine. In my opinion the motion of the barrels gives to the contents a polishing or grinding effect of atom on atom or molecule on molecule, tending to rapidly develop the peculiar smoothness and flavor known as "age" in wines and liquors.

The novel features of the machine, including such changes of construction as would occur to the skilled mechanic, are contemplated to be covered by the following claims.

What I claim is—

1. In a machine for aging liquors, a series of cylindrical barrel-holders arranged about a shaft and held thereto, means for rotating the shaft, and means for inclosing barrels in the receptacles.

2. In a machine for aging liquors, the combination with a central rotating shaft of a series of spiders or cradles connected thereto, a series of cylindrical receptacles supported by the spiders, and ties holding the receptacles to the spiders.

3. In a machine for aging liquors, the combination of a central shaft, a series of cylindrical receptacles arranged around said shaft and ties holding said receptacles to the shaft, and an outer door to each receptacle so that barrels may be rolled therein.

4. In a machine for aging liquors, a cylindrical barrel-receptacle mounted on a shaft and rotating therewith, said receptacle having internal longitudinal ribs, combined with a loose barrel inclosed in the receptacle.

5. In a machine for aging liquors, the combination with a central rotating shaft, of a series of cylindrical barrel-receptacles arranged round and secured to said shaft, each receptacle provided with longitudinal ribs or bumpers, and each having an opening to admit a barrel.

6. In a machine for aging liquors the combination with a central rotating shaft, of a series of cylindrical receptacles surrounding and secured to said shaft, each receptacle having a side door opening outwardly, and provided with means for securing said door when closed.

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

T. R. TIMBY.

Witnesses:
W. A. BARTLETT,
M. E. BROWN.