

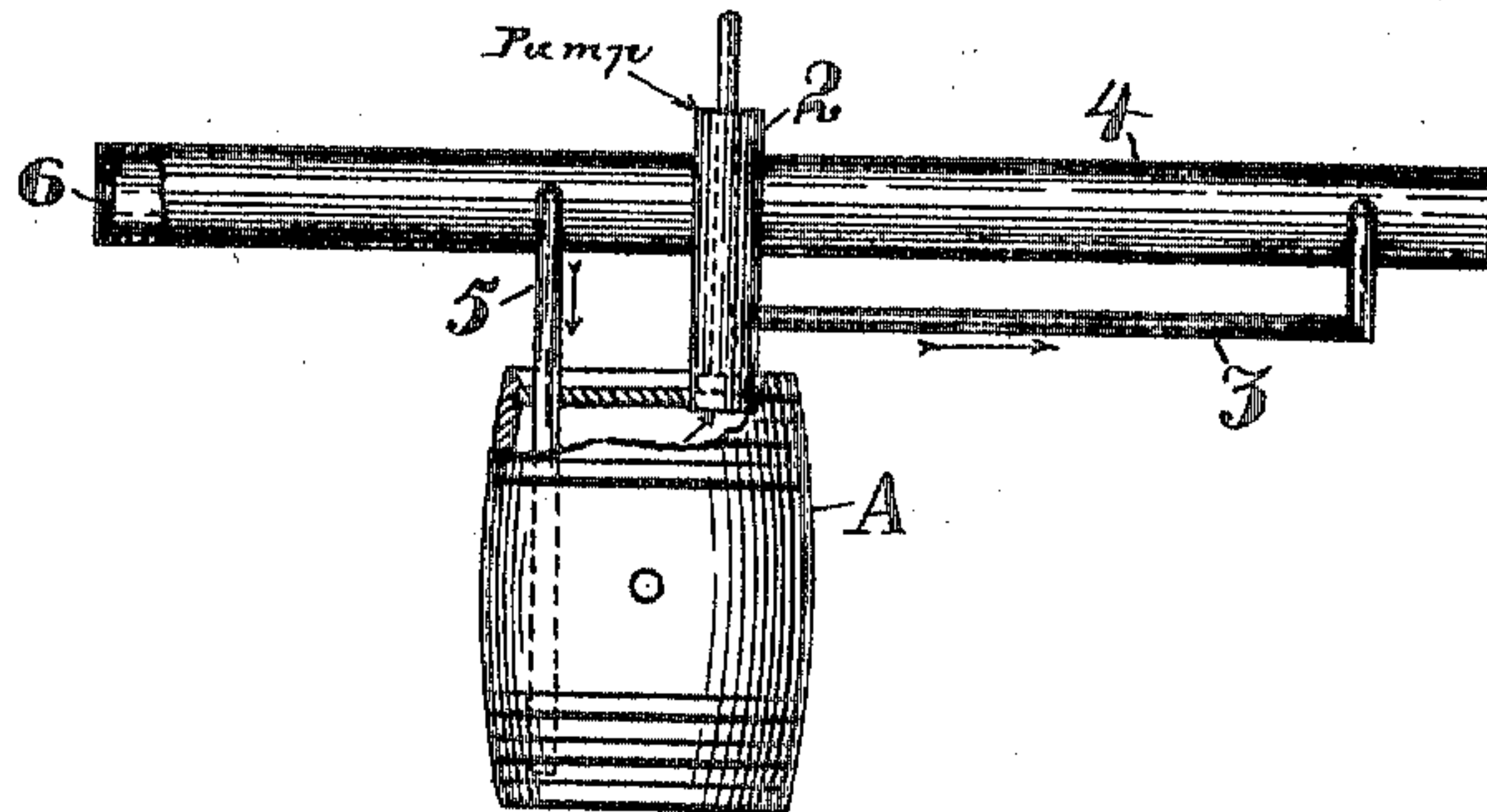
No. 811,966.

PATENTED FEB. 6, 1906.

R. A. STEWART.

MEANS FOR AGING AND PURIFYING LIQUORS.

APPLICATION FILED FEB. 3, 1904. RENEWED DEC. 11, 1905.



Witnesses:-

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UNITED STATES PATENT OFFICE.

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ONE-HALF TO A. J. KNOBLOCK, OF SAN FRANCISCO, CALIFORNIA.

MEANS FOR AGING AND PURIFYING LIQUORS.

No. 811,966.

Specification of Letters Patent.

Patented Feb. 6, 1906.

Application filed February 3, 1904. Renewed December 11, 1905. Serial No. 291,265.

To all whom it may concern:

Be it known that I, ROBERT A. STEWART, a citizen of the United States, residing at the city and in the county of San Francisco and State of California, have invented new and useful Improvements in Means for Aging and Purifying Liquors, of which the following is a specification.

My invention relates to a means for giving the quality known as "age" to liquors of any kind which are capable of such treatment and purifying the liquor of objectionable substances found associated therewith.

It consists, essentially, of a means for introducing air, oxygen, or any desired gas or vapor into alcoholic liquors, wines, and the like, so that by constant contact of the air or gas with the liquor it is given a bouquet and quality of age which is desirable.

Referring to the accompanying drawing, the figure illustrates my improved means for aging and purifying liquors.

A represents a cask or vessel of any kind adapted to contain the liquor to be treated, and 2 represents a pump which extends into the upper part of the cask or vessel, terminating above the surface of the liquid. This pump may be operated by any suitable or desired means, and by means of a pipe 3 the air drawn from the cask is delivered into the end of a pipe or other suitably-formed chamber 4, which is fixed or supported in convenient relation with the cask. From this pipe or chamber a pipe 5 extends down into the cask and to a point near the bottom, so that when the pump is operated the air drawn from the upper part of the cask is forced through the pipe 3 and into the chamber 4 and thence is forced through the pipe 5 and into the liquid contained in the cask, so that the air, oxygen, or other gas or vapor will constantly rise through the liquid and agitate it, thus subjecting the liquid to the action of the air, which in the case of liquors or wines serves to remove certain objectionable substances and to give the liquid an age and bouquet which it ordinarily takes many years to produce.

At some convenient part of the tube or chamber 4 I have shown an inwardly-opening valve 6, and this valve serves to replenish the contents of the chamber 4. If there should be any loss of the aerating or oxidiz-

ing medium, the valve, opening inwardly and automatically, provides the desired supply, and as it closes outwardly there can be no escape in this direction. The pipes 3 and 5 preferably extend so that their upper ends open into the upper part of the chamber 4.

The operation will then be as follows: Air, oxygen, or other gas may be supplied to the chamber 4 through the valve 6. If air only is used, it will fill the chamber by ordinary atmospheric pressure, and when the pump 2 or other circulating apparatus is set in motion the air or elastic fluid will be forced into the liquid in the cask or container A, so as to rise and expand as the depth and pressure of the liquid decrease. This movement of the air brings it into contact with all parts of the liquor, causing an agitation or boiling action, and the air carries up with it the lighter vapors, such as fusel-oil and other objectionable substances found in liquors. These vapors are withdrawn from the upper part of the cask by the pump and transferred to the chamber 4, wherein they may be condensed and collected. This circulation will continually add to the contents of the chamber 4 until the liquor has been purified of its objectionable features and given the quality known as "age."

It will be understood that various forms of the apparatus may be provided and the operation may be continuous.

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

An apparatus for aging and purifying alcoholic liquors consisting of a containing vessel, a chamber 4 supported in relation with the vessel and having a pipe extending into the vessel to a point near the bottom thereof, a pump connected to the upper part of the vessel, a pipe 3 connected to the pump and to the chamber, and a valve in the chamber for the admission of fresh accretions of oxygen thereto.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

ROBERT A. STEWART.

Witnesses:

HENRY P. TRICOU,
S. H. NOURSE.