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NEW SERIES.

WILCOXSON'S STEERING APPARATUS.

When the waves beat against the ship as she heaves to and fro on the restless billows, it is difficult to make her hold her course, for the rudder is knocked hither and thither, and to keep it steady it requires two or more seamen at the wheel, who have to hold on with all their might during the whole time they are on duty.

To facilitate the steering, therefore, and to hold the rudder in the position in which it is placed, D. J. Wilcoxson, of Milan, Erie county, Ohio, has invented the subject of our illustration, and patented it Sept. 20, 1858. The whole is placed in a frame, A, which is placed upon the deck in close proximity to the rudder-head; in the frame, A, two screws, G, are placed, carrying on their ends the cog-wheels, C and C', to the shaft of C, and its screw, G, outside the frame, is secured the wheel, B, by which the screws are turned and the rudder is operated; the screws, although their threads run in the same direction, have opposite motions by being moved by the cog-wheel C' from the wheel C. Two nuts, I, slide on the ways, a, and the screws, G, pass through them, so that as the screws are rotated the blocks are moved forward or back; that is to say, as one is moving forward the other is moving at a corresponding rate to a corresponding distance back. Between the screws comes up the rudder-head, to which is attached two double arms, D, the one below the screws, the other above them; the arms, D, are slotted, and a pin, E, passes through the slots and through the blocks, I, carrying on it friction-wheels, F, which move in the slots.

From this description it will be seen that from the wheel very great power can be exerted on the rudder, and that without much being expended on the wheel, as every possible care is taken to avoid friction, and to render the device easy-working in all its parts. If the rudder is not operated from the wheel it cannot be moved; the winds may blow and the billows roar, but if the rudder is strong enough, a ship can be made to hold her own through the most tempestuous seas.

By withdrawing the pins, E, and friction-rollers, F, a tiller, H, can be added, and the ship steered by the common method. As the rudder is moved from above and below the screws, and the pulling and pushing pressures are always equal, there is no likelihood of any part binding or wearing out prematurely. For large ships or steamboats, which perform voyages on rough seas or oceans, this will be a great boon. Nautical men and others interested in the invention can obtain further particulars either by addressing the inventor, or his brother, J. R. Wilcoxson, No. 175 First-avenue, New York.

NATIVE WINES.

A correspondent of the *Valley Farmer* says:—It has long been a mooted question whether the people of this country can make their own wine. I am satisfied that almost every farmer, as well as a great many persons who are not farmers, can make a plentiful supply of good wine for their own use this coming summer, at a trifling expense, if they will make an effort to do so, from the common blackberry.

Some persons who have heretofore tested the sweetened composition which has been offered them by old ladies, under the name of blackberry, will perhaps smile at this suggestion, but if they will take the trouble to make an experiment or two in the manner I am about to relate,

quart of boiling water. They should then be kept in the tub about twenty-four hours. The heat imparted by the boiling water will cause a fermenting process to start immediately, without the assistance of yeast or any other ingredient. The liquid should be occasionally stirred, and the seeds and skins, most of which will rise to the surface, should be skimmed off. At the end of twenty-four hours the juice should be run into a cask. Whatever remains of the seeds and skins may be strained through a cloth. When the cask is filled, it should be placed in a cellar or some cool place with the bung-hole open. Some of the juice should be kept in a convenient vessel, that it may be added every day to the liquid in the cask, to keep the cask constantly full, so as to allow the scum raised

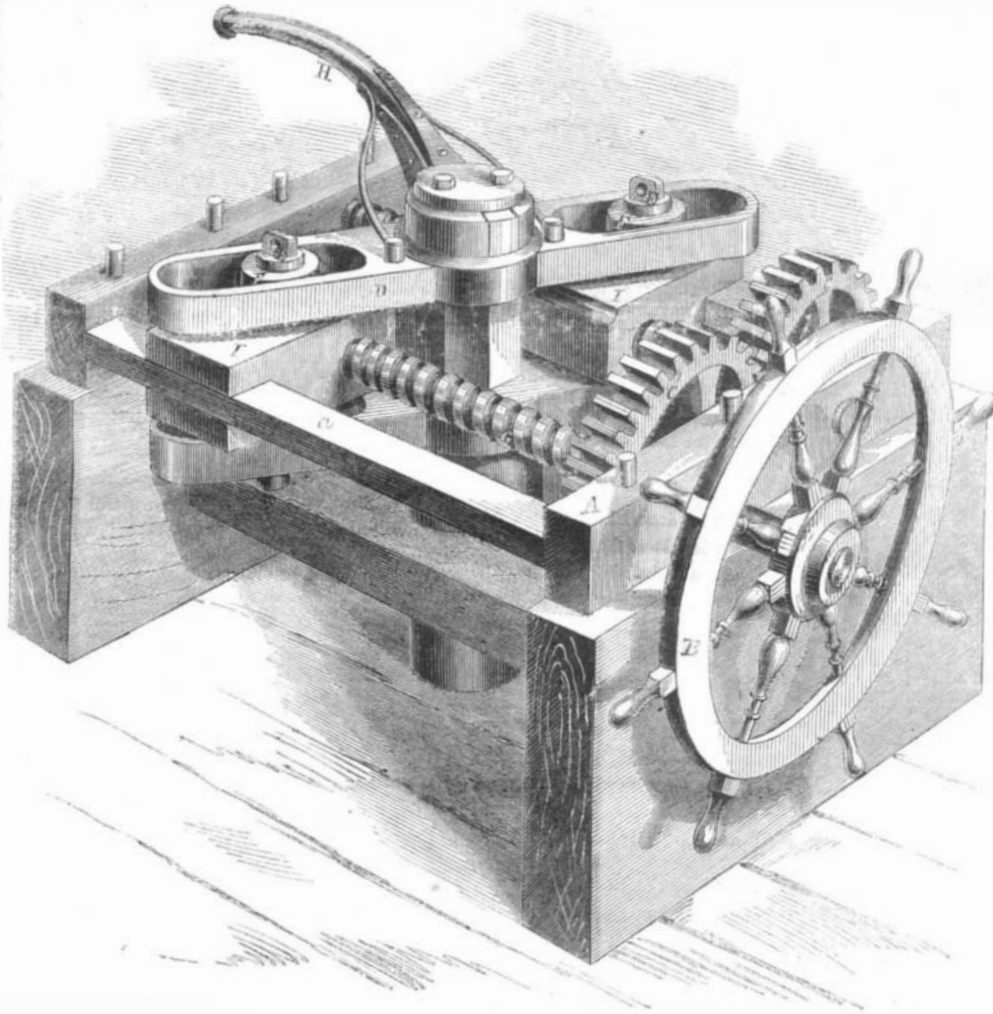
by fermentation to pass off. When the fermentation has progressed sufficiently, which will be in a week or ten days, the cask may be bunged up tight and treated as other wine.

Common brown sugar of fair quality will answer very well. The quantity of sugar should be graduated according to the body which it is desired to impart to the wine. I have now some wine, made in this way last summer, in five-gallon demijohns, with 2 lbs. of sugar to the gallon, and which has never been bottled, but used as it was required from the demijohn, which is entirely free from acidity, and is really an excellent wine of good body and flavor. Not a drop of alcoholic spirits or anything whatever has been added to it after the process above mentioned.

I had some other wine, made in the same way, but with a less quantity of sugar, which strongly resembled claret; but was much better than any of the ordinary French claret to be obtained in this country. I think it very probable that, by varying the process—adding more or less boiling water, and permitting the fermentation to progress for a longer or shorter period—wine of various qualities may be obtained.

From each gallon of berries

treated in the above way, about one gallon of wine is obtained. The cost of gathering the berries will not average more than ten cents, and the cost of the sugar will be from eight to sixteen cents, according to the quality used. Here then is wine that will not cost more than twenty-five cents to the gallon, and in the country where the children will pick most of the berries, the real outlay will not be more than from eight to sixteen cents. What, then, is to prevent the farmers from having their own table wine, and plenty of it? That the juice of the blackberry contains all the essential requisites for making a good wine, is absolutely certain. That a very superior wine may be made from it by proper treatment, is quite probable. Try it.



WILCOXSON'S STEERING APPARATUS.

they will find that wine can be made from blackberries; and that while we have been searching all over the world for grapes that can be naturalized, with the view to supply ourselves with that very desirable beverage, a fruit which grows plentifully at our own doors, and which is admirably adapted for that purpose, has been entirely overlooked.

When the berries are ripe they should be rubbed between the hands or with a wooden masher in some suitable vessel, until the cells containing the juice are thoroughly broken. They should then be placed in a tub—one that is deep and of not very great diameter is probably the most suitable—and to each gallon of berries add from one to two pounds of sugar. After mixing the berries and the sugar, add for each gallon of berries one