

An Aid to Curing Alcoholism.

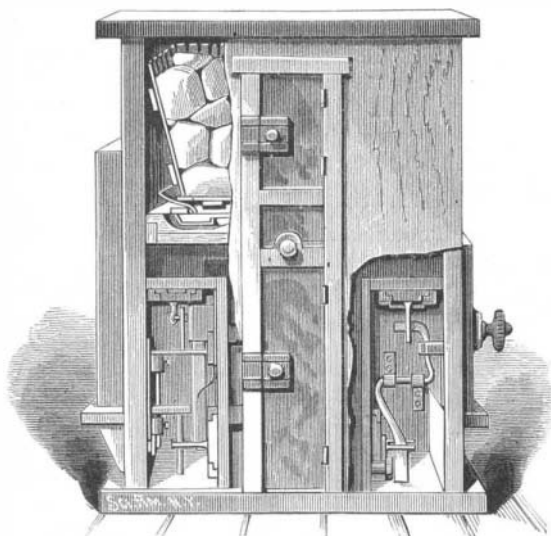
We believe the best authorities are generally skeptical as to there being any sure cure for confirmed habits of inebriety unless the effort in that direction be aided by a strong exercise of the will of the unfortunate subject of the bad habit. There are, however, many remedies recommended as aids in diverting or in a minor degree satisfying the appetite for strong liquors, which are undoubtedly of great advantage in some cases, and one of these is thus recommended by a self-styled "rescued man": "I was one of those unfortunates given to strong drink. When I left it off I felt a horrid want of something I must have or go distracted. I could neither eat, work, nor sleep. Explaining my affliction to a man of much education and experience, he advised me to make a decoction of ground quassia, a half ounce steeped in a pint of vinegar, and to put about a small teaspoonful of it in a little water, and to drink it down every time the liquor thirst came on me violent. I found it satisfied the cravings, and it suffused a feeling of stimulus and strength. I continued this cure, and persevered till the thirst was conquered. For two years I have not tasted liquor, and I have no desire for it. Lately, to try my strength, I have handled and smelt whisky, but I have no temptation to take it. I give this for the consideration of the unfortunate, several of whom I know have recovered by means which I no longer require."

IMPROVED REFRIGERATOR.

In the refrigerator illustrated in the annexed engraving, the air passages leading from the main chamber to the side air chambers are opened and closed from the outside, thereby excluding the warm outer air from the main and also from the ice chamber when the doors of either of the side air chambers are opened. It is formed with a central and two side air chambers, each of which has a door or window communicating with the outside.

The chambers at the sides of the central chambers are each formed with a side and top wall provided with openings that are closed by slides, in order to prevent the outer air from reaching the chamber and the ice chambers when the doors are opened. These slides may be operated in the same manner as those described, or they may be connected to a door or window by rock shafts so that opening the latter will close them at its first movement, while closing the latter will open them at its last movement.

Above these is the ice chamber, in the bottom of which are air passages that may be closed to cut off all communication between the ice and provision chambers before open-

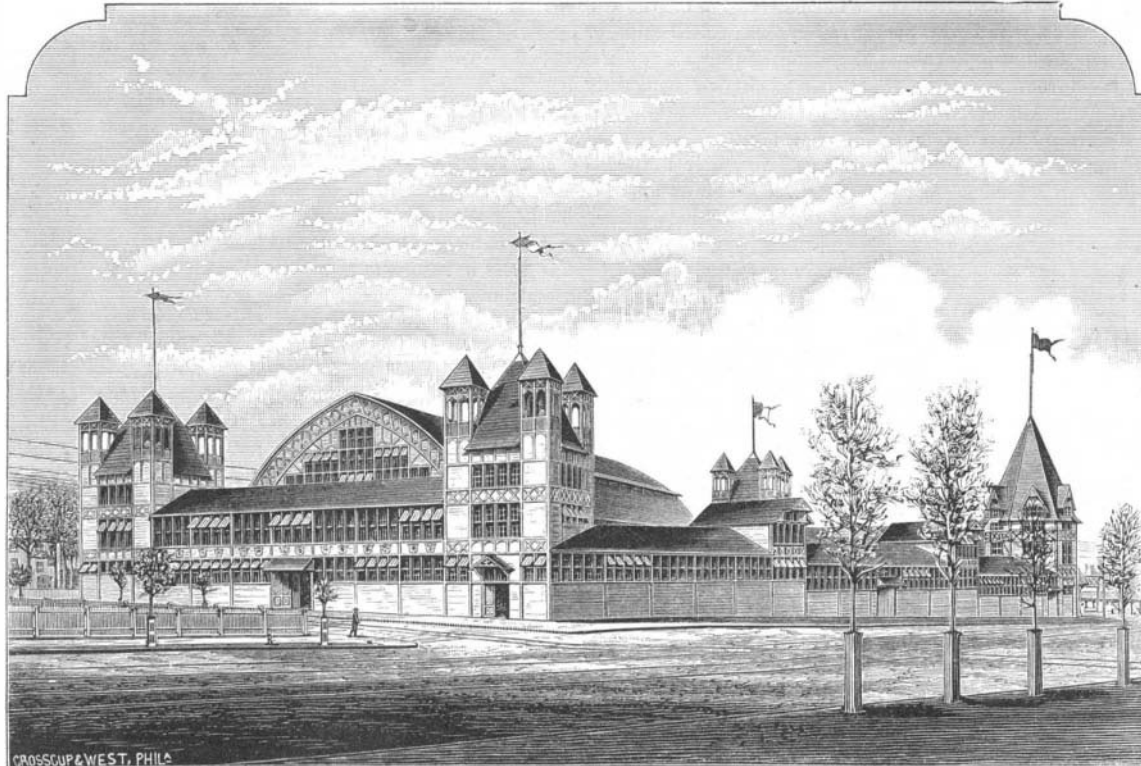
**BERENS' IMPROVED REFRIGERATOR.**

ing the door of the main chamber, the object being to shield the ice from the current of warm air which would otherwise rush in to fill the vacancy caused by the cold air rushing out. These air passages are opened and closed by slides connected together by pivoted arms operated by a rod projecting through the refrigerator wall; the rod is graduated in order that the amount of cold air can be regulated. In this refrigerator, the cold air not escaping while it is open, it requires but little ice and keeps the temperature even.

The engraving shows two other chambers in which provisions may be put temporarily. The wall separating these chambers from the main chamber can be readily removed for cleaning. This invention has been patented by Mr. Charles J. Berens, of Washington, Indiana.

THE INTERNATIONAL ELECTRICAL EXHIBITION.

As has already been announced in the columns of our paper, an International Exhibition will be held at Philadelphia next autumn, under the auspices of the Franklin Institute, of the State of Pennsylvania, for the Promotion of the Mechanical Arts. The exhibition will be formally opened on Tuesday, Sept. 2, 1884, and will remain open until Saturday, Oct. 11, 1884.

**BUILDING FOR THE INTERNATIONAL ELECTRICAL EXHIBITION AT PHILADELPHIA.**

The accompanying plate is a view of the exhibition building, which is now in process of erection, and which, by the terms of the contract, will be finished by the 15th of June. The building is being erected by Mr. Jacob R. Garber, from the plans of the architects, Messrs. Wilson Brothers & Co.

The following brief description will give a general idea of its character:

The main-building will be rectangular, having a length on Foster Street of 283 feet and a breadth of 160 feet, extending from Foster Street to Lancaster Avenue on Thirty-second Street, and part of the distance from Foster Street to Lancaster Avenue on Thirty-third Street. A tower sixty feet high will be situated at each of the four corners of this building. One central arch of 100 feet span and 200 feet in length, of the Gothic style of architecture, will cover the greater portion of the space occupied by this building, while two smaller ones, having a span of thirty feet and running parallel to it on either side, will join the towers. The building will have second story apartments at its ends on Thirty-second and Thirty-third Streets respectively, with stairways leading up in the towers from the ground floor. The towers themselves will be three stories high. Two long and narrow hallways will afford communication between these apartments. The remainder of the ground will be inclosed by a large triangular building, one story in height and joined in the main wall. The main entrance will be at the corner of Thirty-second Street and Lancaster Avenue, another at Thirty-third and the Avenue, and one at each of the other towers. Five exits are provided for on the plans, but desirable changes may hereafter be made in the number and situation of both entrances and exits before the work is completed.

The meeting of the American Association for the Advancement of Science, which will be held this year in Philadelphia, and the expected presence of many representatives of the British Association, which will meet this year in Montreal, will attract a numerous and influential scientific gathering in Philadelphia during the time of the holding of the exhibition; and in order that so exceptional an opportunity to promote the interests of science shall not be lost, Congress has been requested to authorize the holding of a National Conference of electricians, to convene in Philadelphia at this time. Should Congress, in its wisdom, make the proper provisions for holding such a conference, the results promise to be of much value.

A comprehensive scheme of classification has been carefully elaborated; a system of rules and regulations to govern the internal management of the exhibition has been adopted; provisions have been made in the interest of intending foreign exhibitors, to relieve them of all trouble in respect to the passage of their exhibits through the Custom House, and the proper reception and care-taking of the same on their arrival; and arrangements have been made with a number of the leading transportation companies to return, free of charge, goods on which freight charges have been paid one way.

The above information, expressed in detail, has been published in the form of a twelve page pamphlet, which, with a blank form of application for space, has been issued in the English, French, and German languages, and exten-

sively circulated in the United States and throughout Europe.

There are evidences at this time, even, that the exhibition will be one of unusual interest and value. The active participation of several of the scientific bureaus of the United States Government and of all the leading electrical companies is assured. Numerous inquiries both from official and private sources have been received from abroad, and interesting and valuable contributions from European countries are confidently anticipated.

The circular of information herein referred to, with blank forms of application for space, may be obtained in the English, French, or German language by addressing a request therefor to the Secretary of the Franklin Institute, Philadelphia, Pa.

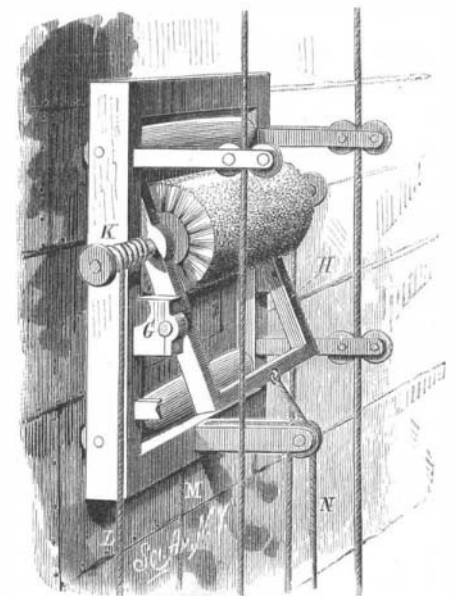
We are indebted to the courtesy of the *Journal of the Franklin Institute* for the cut which accompanies this article.

A Plan for Controlling the Spring Floods.

A Canada correspondent suggests that, instead of one great reservoir, that would be dangerous as well as expensive, it would be better to build a system of detaining works on all the small streams. The idea is to begin at all points where a four inch pipe will discharge the average water, and there make a two-foot bank to hold back the surplus, building "hundreds of thousands" of these small dams, at a cost of from five to ten dollars each.

IMPROVED SHIP CLEANER.

In the frame, which is made strong and light, are journaled two parallel curved rollers, which keep the frame about an inch from the bottom or side of the ship. From near the corners of the frame project four arms, and in the end of each are placed two wheels, between which the tightly drawn guide ropes pass. The frame is easily raised and lowered on these ropes, and brought against the surface to be cleaned. A frame, H, is pivoted in the blocks, G, projecting from the sides of the main frame. In the upper part of this frame is journaled a brush made with bristles of steel wire about six inches long. The shaft, K, of the brush projects beyond the sides of the frame, and is worked by means of two ropes, L, coiled reversely upon the projecting parts. When the brush is revolved in one direction by pulling on one rope, the other rope will be wound on the shaft and so on alternately, the shaft being revolved in opposite directions. The lifting rope, N, is secured to the end of the

**COOPER'S IMPROVED SHIP CLEANER.**

frame, H, passes over a pulley in an arm on the lower bar of the main frame, and then extends to the deck or to a boat at the side of the vessel. By pulling on this rope the lower end of the frame, H, will be lifted from the side or bottom of the ship, and the brush will be pressed against it. The degree of pressure can be regulated at will, and barnacles, rust, paint, etc., can be removed from a ship in a short time. The machine is rigged for work by extending a rope between suitable supports, and from a pulley on this rope are hung the guide ropes, which extend under the ship and over the gunwale on the other side.

This invention has been patented by Mr. J. L. Cooper, and further particulars may be had by addressing Mr. James O. Cooper, No. 165 Fourth Street, Portland, Oregon.