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and the fire passes under them and up the chimney as shown by the arrows. Should it be desirable, however, to concentrate the heat on any one pan, either at the top or bottom, the dampers in the other flues are closed, and the heat from all the furnaces passes under the one required, and this does not in any way affect the draft, as the flue H, next the furnaces, remains open in any case, and connects with the chimney through the passage under the pans; whichever one is open at the time.

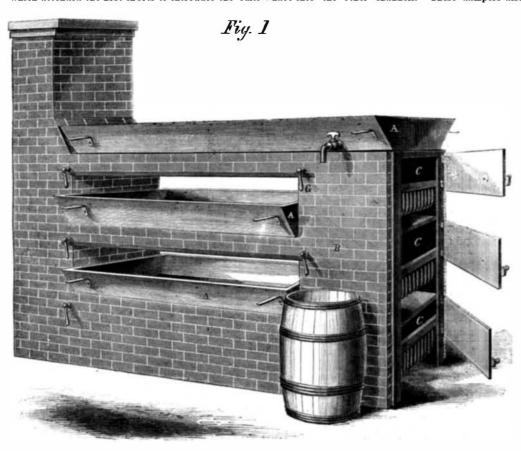
Any one of the pans can be removed without injuring the draft, as the dampers aforesaid close the openings effectually and send the heat from the furnace into the other channels. These dampers also

all the dampers are turned down, as shown in Fig. 2, and cleaner sugar is produced. This is an important

This is a very complete and useful evaporator, and has been highly commended by competent judges. It is the invention of Jesse C. Chesney, of Abingdon, Ill., and was patented through the Scientific American Patent Agency, Dec. 15th 1863. See advertisement on another page.

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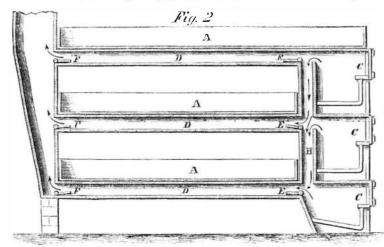
vation of the cane at the North, it has now become, afford a means for controlling the temperature under

The evaporating apparatus illustrated herewith is intended to place the temperature of the liquid completely under the control of the operator, and this end is attained in the following manner:

The pans A, are set in masonry B, which is provided with furnaces C; one for each pan; these in use, and that it is very economical in fuel. The

or is fast tending in that direction, a staple product. the pans without turning the heat off completely as they may be, but partially closed, thus allowing some of the caloric to enter while the bulk of it disappears up the chimney or under the other pans.

The inventor claims that his evaporator will burn wood as well, and coal better than those ordinarily



and draft openings as usual. In Fig. 2, a section of this evaporatoris shown, which will enable the reader to understand the principle clearly. In order to control the temperature of the heated juice, the flues D, which lead from each furnace, are fitted with dampers E and F, at each end; these are turned by handles rom the outside. When it is simply desired to boil he liquid or pass the heat under all the pans alike, of using a ladle, as is generally practiced, much better

urnaces are all closed with doors and have grates scum and impurities can be removed before it is drawn off into the finishing pan. Also that the heat from the upper pans is reflected to the lower ones, and that from this reason and the heat below evaporation goes on more rapidly. The temperature is so completely under control that burning the juice is impossible except through carelessness, and by the adoption of a faucet for drawing off the liquid instead

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