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NEW SERIES

Improved Salt Block.

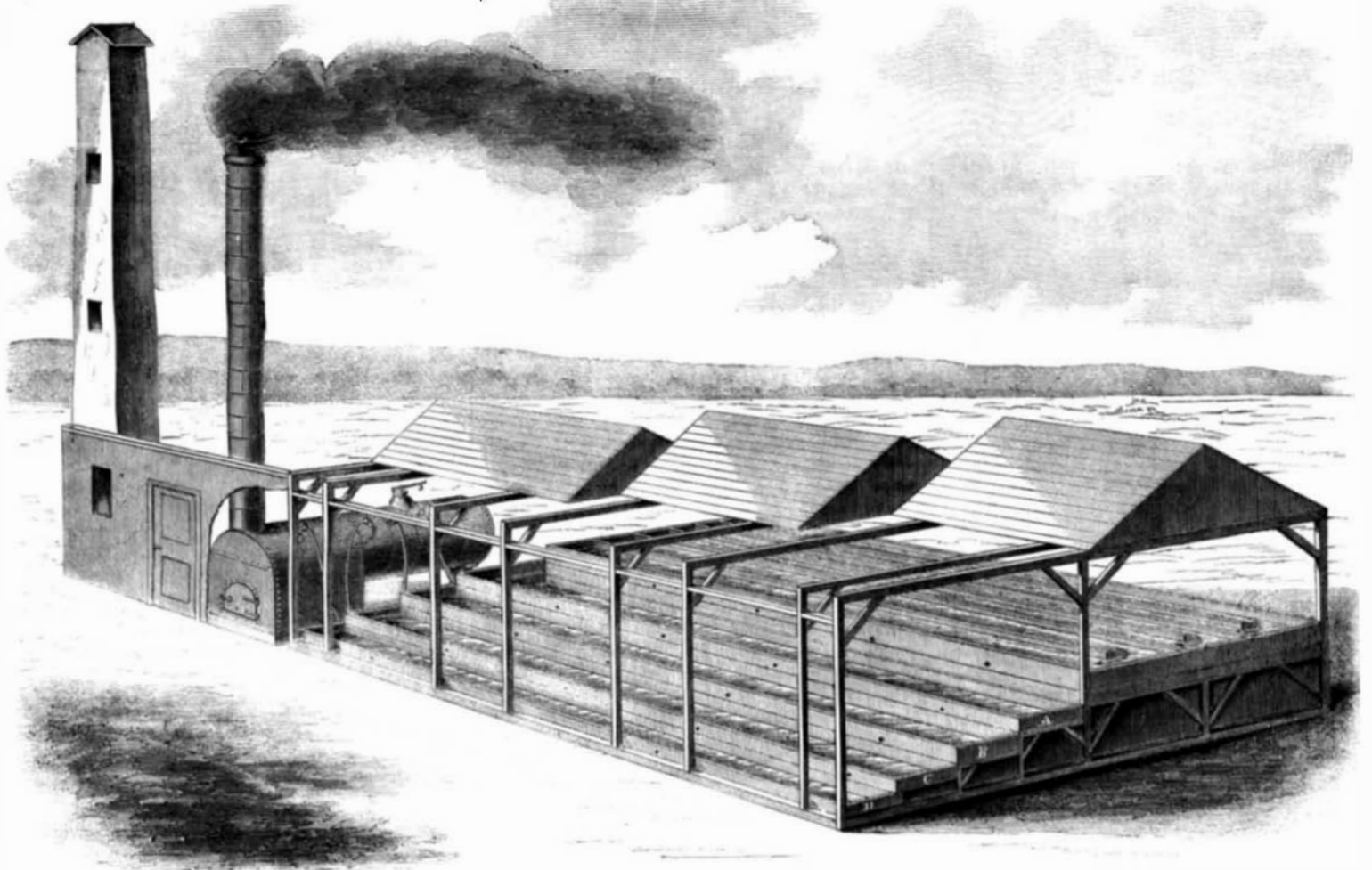
In another page will be found a full account of the marvelous growth of the salt manufacture of Michigan; the business having within three years transformed a comparative wilderness into a busy and prosperous region. This rapid development of salt

which the brine flows over a false bottom like those of the vats, where it is heated in the same manner as in the vats.

The several vats are placed on successive descending steps, so that the brine may be drawn from one to another by merely opening a cock, thus avoiding

from 7 feet 6 inches in diameter down to 12 inches, have been purchased from the Sheffield works. They have the advantage over bronze bells of costing 40 per cent less per pound, and as they are made of far less thickness in proportion to their diameter than bronze, it is easy to comprehend the economy, in all

Fig. 1.



GARRISON'S SALT BLOCK.

making is leading to many improvements in the process of manufacture, and all of these which are of any importance we hope to illustrate in our pages. The annexed engraving is a picture of a salt block, invented by a resident of the new salt district who has the manufacture going on under his eyes, and who believes that very considerable economy both in fuel and labor will be effected by his improvements.

Vats, A B C and D, for evaporating the brine are constructed with double bottoms, a space being left between the two bottoms for the circulation of steam or hot air. If steam is used it may be generated by a boiler placed at the end of the block and conducted into the spaces at the bottom of the vats by pipes. The pipes are supplied with stopcocks for directing the steam below any of the vats where it may be required.

Before the brine is let into the vats it is partially evaporated in a broad trough, which is partially divided by partitions starting alternately from either end so as to form a zigzag channel, through

all expense of dipping and pumping in the process of manufacture.

When the brine is evaporated to the proper point the bitters are drawn off, and the salt is crystallized and dried in the same pans which are used for effecting the evaporation.

The patent for this invention was granted through the Scientific American Patent Agency, Aug. 19, 1862, and further information in relation to it may be obtained by addressing the inventor, C. O. Garrison, at East Saginaw, Mich.

Cast-Steel Bells.

The London *Mechanics' Magazine*, speaking of steel in the great Exhibition, says: The cast steel bells of Messrs. Naylor Vickers & Co., are so well known that it becomes a superfluous task to do more than mention them here. All who have gone into the Exhibition must have observed those which grace the eastern transept, or have heard their clear and silvery sounds. During the last five years, we are told, no less than three thousand steel bells, varying in size

respects derivable from their use. Large as has been the demand for steel bells, it is probable that the publicity given them in the Exhibition will greatly extend that demand.

A FRENCH company has been formed in Paris, with a capital of £10,000 for the cultivation of cotton in Algeria. The company also propose to cultivate other crops, such as corn, olives, vines, tobacco and flax; and will further breed cattle on a large scale, and will likewise propagate the rearing of silkworms, cochineal and other valuable produce. The land proposed to be cultivated by the company comprises a surface of nearly 20,000 acres.

In India, the mercury in the thermometer has been observed to stand at 145° in the direct sunlight, and at 120° in the shade. In high latitudes the temperature is sometimes as low as 100° below zero. A Russian army, in an expedition to China, in 1839, was exposed for several successive days to a temperature 42° below zero.