The sample tests with various quantities of salt used in the above mentioned work go to show that the strength of the mortar increased with the quantity of salt used.

The Austrian Society of Civil Engineers & Architects(*) have recently investigated the question of masonry construction in freezing weather. "During a temperature below 26° F, 11 brick walls were built, each 3 "ft. 4 ins. long, 6 ft. 8 in. high, and 10 in. thick. The following mor- "tars were used:

"(1) Common fat lime mortar, (2) Roman cement mortar, (3) Port- "land cement mortar, (4) 1 of Portland cement to 2 of lime, (5) "cement and slag mortar. All these mortars were tried over with cold "water and once with warm water (77° F), and some of them were tried "with a 7 per cent. cold salt solution. Two walls were also built with "a frost-proof mortar,—Patent Hansleitner.

"The first three mortars were also tested on nine rubble masonry "walls, the same length and height as the brick walls, and 15 ins. thick. "The water was used ith the same variations was above. Half of each "wall was covered with boards, and the covered half showed in each "case somewhat better results.

"After three months the walls were examined; wherever lime had been used, either alone or with cement, the result was a failure.

"The use of Roman cement gave different results according as it "was used on brick or stone.

"Portland cement with cold salt solution and frost-proof cement "'Patent Hansleitner' were the only mortars which gave perfect satis- "faction, and these were in good order when used as exterior finish."

Inasmuch as we in Canada are debarred from construction about four months in each year, if it be unsafe to build masonry work, it is considered important to show that with proper materials properly handled there need be no fear to use Portland cement mortar on account of cold weather; and in the hope that the resulting discussion will bring out many precedents the foregoing notes have been prepared.

(*) Engineering News, 1894, p. 253, Vol. XXXI.