

*Note on Gypsum crystals found lining a disused well
at chemical works.*

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[Read November 14, 1905.]

BEFORE the value of hydrochloric acid for chlorine manufacture was recognized by soda-crystal makers, it was a common practice to get rid of the unpleasant fumes in the cheapest and most convenient way possible. At Messrs. Chance's works at Oldbury, near Birmingham, this was done by turning the gases from the salt-cake furnaces into a culvert which ran through some portion of the works. The better to condense the fumes, it seems probable that a brook, which runs near the works, was diverted into the culvert, thus forming a rough condenser. Some thirty years or so ago, when alterations were being made at these works, a culvert of this description was unearthed and found to be lined with crystals of gypsum, which had formed on the brickwork. An old well, which was opened, was also studded with beautiful tufts of crystals. I am indebted to Mr. A. M. Chance for a handsome specimen with numerous attached crystals of gypsum, and also for some stereoscopic slides showing the well with the crystals *in situ*.

The crystals on this specimen are from 20 to 30 mm. in length. They are elongated in the direction of the vertical axis, and are slightly tabular owing to the predominance of the form $b\{010\}$. Mr. T. V. Barker has kindly determined the forms present, and finds them to be only $b\{010\}$, $m\{110\}$, $n\{111\}$.

The deposition of these crystals was produced, I presume, by the gradual weakening of a solution of calcium sulphate in hydrochloric acid. There must have been plenty of lime and sulphuric acid about the works to furnish the gypsum. Calcium sulphate would be taken up by the hydrochloric acid, and subsequently, when the wasteful method of condensing the acid was discontinued, the acid solution would gradually weaken and crystals of gypsum be deposited.