

DISCOVERY OF CELESTITE IN THE TRICHY DISTRICT

IN a recent publication of the Geological Survey of India,¹ Dr. Krishnan has made some erroneous observations on the discovery of celestite in the Trichinopoly District.

The Trichy Mining Works did not at any time send to the Indian Institute of Science any specimens of celestite for analysis; the 'lump' referred to in our note in *Current Science*² was picked up by me for examination while on a tour in the area of occurrence. The Trichy Mining Works, therefore, cannot be credited with any share for the discovery of celestite. It must also be pointed out that our estimate of one million tons of celestite as published in *The Hindu* (daily edition 4-1-1940), refers to the whole area and not to the restricted area of 1,500 acres.

Regarding Dr. Warth's observation on the occurrence of celestite, his note was not in any published form, but remained in the Government files only. Therefore the claim of the authors³ for the discovery of celestite, cannot be invalidated, as has been attempted by Dr. Krishnan.

In this connection, Dr. Krishnan³ is again wrong in quoting us as stating that both strontium sulphate and strontium carbonate occur as thin plates filling the cracks in the phosphatic nodules collected from Utatur area. We have made no reference to strontium carbonate, but reported only celestite. Our estimate

of the celestite in the phosphatic nodules, as up to 3 per cent. and "even 10 per cent. in exceptional cases" is in no way high. Our estimates are based on systematic quantitative physical and chemical studies of large quantities of phosphatic nodules, and not on the basis of the rough "hammer tests". There has been besides no mistaking of gypsum for celestite, as gypsum occurs mainly in the non-phosphatic nodules while celestite, as a rule, occurs in the phosphatic nodules.⁴

Finally, the statement of Dr. Krishnan about a possible mistaking of fibrous calcite for strontianite is quite unfounded. I have clearly noticed the widespread occurrence of the brown fibrous calcite. Strontianite occurs, though only to a limited extent and largely mixed up with celestite and other impurities, as small grey or yellow fibrous, or earthy appearance, and has been identified only after detailed chemical studies. It has never been maintained that strontianite occurs in enormous quantities in the Trichy area.

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¹ *Rec. Geol. Surv. Ind.*, 1941, **76**, Bull. No. 3, 9 and 10.

² *Curr. Sci.*, 1939, **8**, No. 12, 553.

³ G. O. No. 735, (10-4-1941), Development Dept., Government of Madras.

⁴ *Jour. Ind. Inst. Sci.*, 1940, **23A**, Part II, 11-20.