

If this copy be developed with certain substances of the aromatic group (viz., phenol, amido-benzoic acid, etc.), vividly colored pictures are obtained. However, these applications have not been put into effect to any extent.

Therapeutics. Attention was attracted comparatively early to the physiological properties of cerium salts and their applicability for medical purposes. Thus the eminent gynecologist, Simpson, in the early seventies of the last century, recommended cerium oxalate as an efficacious remedy for *Vomitus gravidarum*. Although in succeeding years opinions differed widely as to the value of this preparation, it was nevertheless incorporated into the pharmacopœias of various countries. *Cerium oxalicum medicinale* contains besides cerium, considerable quantities of other rare elements. Subsequently the therapeutic application of cerium oxalate was extended to the treatment of sea-sickness, epilepsy, headache, etc. Several other cerium salts were introduced for medical purposes together with the oxalate. Thus Mackay recommends the use of cerium-ammonium citrate. Cerium hypophosphite is said to be applicable to phthisis.

According to the researches of Wasilieg and Bokorny, the cerium salts possess poisonous properties. Drossbach, who conducted similar experiments on the salts of other rare elements, observed the bactericidal effect of such preparations. A practical process mentioned by the latter, for the preservation and disinfection of decaying substances, calls attention to the use of diluted solutions of lanthanum, yttrium, erbium, and ytterbium salts.

According to later investigations conducted by J. Schmidt, the use of *didymium chloridum*, $\text{DiCl}_3(\text{H}_2\text{O})_6$, as an antiseptic in veterinary medicine gave unsatisfactory results. Among the various rare earth antiseptics that have been suggested, may be mentioned the nitrates of cerium, lanthanum, "didymium," the compound salts of cerium with bismuth, cerium oxalate and salicylate (as a sprinkling disinfectant), and the disulphates.

Rare-earth preparations have not been sufficiently tried in medicine to warrant their adoption as yet. Systematic investigations on the physiological action of these substances, assisted by the writer, were carried out in the laboratories of the Medical College of Cornell University and of the College of Physicians and Surgeons of Columbia University. It was demonstrated that these bodies possess no characteristic therapeutic value.