quently the biological action of the gamma and beta rays must be analogous. The difference is quantitative and is due to the fact that the ratio of beta and gamma rays in a unit of radium is about 100 to 1. Five millicuries of radium emanation distributed in 10 capillaries will destroy 10 cubic millimeters of carcinoma. To produce the same effect by surface application the gamma rays of 500 millicuries would have to be employed. The statement made by physicists that the biological effect of one millicurie of radium emanation buried in the tissues equals 132 millicurie hours of surface application of filtered radium must be corrected since it does not take into account the action of the beta rays and their secondary x-rays.

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A crystalline substance from the parathyroid glands that influences the calcium content of the blood.

By LOUIS BERMAN.*

[*From the Laboratory of Biological Chemistry, School of Medicine, Columbia University, New York City.*]

Parathyroid glands from oxen were extracted with acidified alcohol. Lipins and proteins were removed from the extract. Crystalline material was obtained by concentration which increases definitely the calcium content of the blood when dissolved in Ringer solution and injected into the circulation. Its effects upon the calcium content of the blood have been compared with those of adrenalin, pituitrin and insulin. Whether this crystalline material is the active calcium-mobilizing substance in the gland or merely a carrier of it in the preparation, remains to be determined. Its separation is additional evidence in favor of the view that the parathyroid glands secrete a hormone that influences the calcium content of the blood.

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* Introduced by William J. Gies.