



THE FAMILY TREE OF YTTRIUM'S DESCENDANTS

This diagram shows the way chemists isolated the new earths from the Swedish rare mineral, gadolinite.

which the true erbine ought to become concentrated. At the same time, I tried to concentrate the coloring matter in the residues rich in ytterbine (A) and in yttria (B). When I had pushed the decompositions until obliged to stop for lack of material, I sent the five fractions for examination by M. Thalen, who had the kindness to study them with great care. . . .

We see then that the (absorption) band  $x$  pertains to fractions situated near ytterbine, and that it does not exist in the fractions which derive from yttrium. But it is just the opposite with bands  $y$  and  $z$ ; in fact, these bands, which lack everything found in the residues of ytterbine, appear more and more pure, in proportion as they approach yttrium.

It appears from these researches that the spectrum of the old erbine ought to be attributed to three distinct oxides. In fact, the color of the solutions of the diverse fractions is sensibly different. Thus the fractions treated for ytterbine are colored rose with a tint of violet, the fractions treated for yttria have an orange tint. Although I have a considerable quantity of the mixture of these three oxides, I am convinced that it will be useless to continue these researches until I am able to get still more.

#### Proposes a Name

As for the radical of the oxide occurring between ytterbine and erbine, which is characterized by the band  $x$  in the red part of the spectrum, I propose the name thulium, derived from Thule, the earliest name of Scandinavia. The atomic weight of the metal Tm ought to be about 113 (its oxide being RO); at least, its oxide is concentrated in the fractions which have the molecular weight 129.

The true erbium, to which the common bands should be attributed, probably has an atomic weight of 110 to 111. Its oxide is of a clear rose color.

The third metal, characterized by the bands  $y$  and  $z$ , which is found between erbine and terbine, ought to have an atomic weight lower than 108. Its oxide appears to be yellow; at least, all the fractions of molecular weight lower than 126 are more or less yellow. I propose for this metal the name of holmium, Ho, derived from the latinized name of Stockholm, in whose vicinity occur so many minerals rich in yttria.

It remains to tender M. Thalen my lively appreciation of the trouble which he has taken with all these researches.

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#### MEDICINE

## New Studies Cast Doubt on Cancer Treatment Value

**F**URTHER DOUBT on the value of the Coffey-Humber treatment for cancer is cast by a report made by Dr. Howard A. Ball of Los Angeles to the *American Journal of Cancer*.

Dr. Ball examined the tissues of the cancers or other malignant growths on the bodies of patients who had had the Coffey-Humber treatment with suprarenal cortex extract. He compared these with the cancers of patients who had died without having had the Coffey-Humber treatment. There was no evidence that the treatment had had any effect on the cancer.

"No essential change from that usually observed in the characteristics of malignant tissue in far advanced cases could be determined in a series of 89 cases that received the experimental

#### ZOOLOGY

## Drinking Troughs Preserve Rare African Elephants

**B**OREHOLES have been sunk, and special drinking troughs have been provided, to secure protection for a herd of some forty South African elephants in the Addo Reserve in South Africa. These forty represent the last of a species which are somewhat smaller than their northern brothers in Africa. The absence of water caused these elephants to roam off the reserve, doing damage to neighboring farms.

Another huge preserve is being established between the Aub and the Nosob rivers in the Northwestern Cape Province, and here the gemsbuck, one of the most beautiful of South African antelopes, will be preserved. This animal is very nearly extinct in other parts of the South African Union.

A third reserve will be in the Bredasdorp district, where the spotted deer, only ninety of which are left, will be protected. Twenty-five of these animals will be fenced in, and every effort made to encourage their increase. It is proposed to place these new reserves under the National Parks Board of South Africa, which now administers the Kruger National Park.

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suprarenal cortex extract (Coffey-Humber)," he reported.

He also found that the cancer had spread to the suprarenal glands in a strikingly large number of cases of the group that had had the Coffey-Humber treatment. This is all the more significant since Coffey and Humber hold the theory that these very glands produce a principle governing cell growth, and base their treatment on this theory. It would seem that such an organ which had the power of regulating cell growth, if it existed, would be least prone to cancer in the first place and the least frequent place for secondary cancers to develop, Dr. Ball commented.

Dr. Ball made his investigation while research pathologist for the W. K. Kellogg Foundation of California.

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