

3. Classify in greater detail. Enter a paper under each subject heading of which it treats even though it seem unimportant.

F. B. WEEKS.

SCIENTIFIC JOURNALS AND ARTICLES.

THE *Bulletin of the Michigan Ornithological Club* for December contains articles on the 'Nesting of the White-breasted Nuthatch,' by Edwin G. Mummery; 'Purple Martin Notes from Waynesburg, Pa.,' by J. Warren Jacobs; 'Nesting of the Sandhill Crane in Michigan,' by Edward Arnold. There is the third series of portraits of Michigan ornithologists and other illustrations, including a half-tone of the University of Michigan Museum. Besides the papers above mentioned and the official 'Minutes of Club Meetings,' book reviews and the constitution of the organization there are numerous notes including 'Another Parasitic Jaeger (*Stercorarius parasiticus*) from Michigan,' by Alexander W. Blain, Jr., and 'Nesting of the Cardinal Grosbeak (*C. cardinalis*) in Ingham County, Michigan,' by Professor Walter B. Barrows, being the first authentic record of the breeding of the cardinal in the state. Beginning with 1904 Charles E. Wisner, of Detroit, will assume the business management of the *Bulletin*.

SOCIETIES AND ACADEMIES.

NORTH CAROLINA SECTION OF THE AMERICAN CHEMICAL SOCIETY.

THE seventh annual meeting of the section was held in the chemical lecture room of the Agricultural and Mechanical College, West Raleigh, on November 28, 1903, at 11 A.M., with presiding officer, Chas. E. Brewer, in the chair.

Preceding the presentation of papers a short business meeting was held and the following officers were elected for the ensuing year:

President—Dr. A. S. Wheeler, Chapel Hill, N. C.

Vice-President—Dr. R. W. Page, Raleigh, N. C.

Secretary-Treasurer—C. D. Harris, Raleigh, N. C.

Councillor—Professor W. A. Withers, Raleigh, N. C.

Reporters—W. G. Morrison, West Raleigh, and S. E. Asbury, Raleigh, N. C.

The following papers were presented and discussed:

Action of Ultra-violet Light upon Rare Earth Oxides: CHARLES BASKERVILLE.

See *American Journal of Science*, December, 1903.

On the Action of Radium Compounds upon Rare Earth Oxides and the Production of Permanently Luminous Preparations by Mixing the Former with Powdered Minerals: CHARLES BASKERVILLE AND GEO. F. KUNZ.

Will appear in *American Journal of Science*, January, 1904.

Phosphorescent Thorium Oxide: CHARLES BASKERVILLE.

As previously shown, thorium dioxide is one of the two rare earth oxides (zirconium dioxide being the other) and the only radio-active one which phosphoresces with ultra-violet light. This method of testing was applied to different fractions obtained from the thorium dioxide by volatilization of the chlorides. The three fractions obtained varied as follows: The residue (containing the carolinium) is only faintly phosphorescent, due doubtless to the retention of some thorium. The crystalline sublimate is about ten times as phosphorescent as the original oxide, whereas the very volatile fraction (*weisser Dampf* of Berzelius) does not phosphoresce at all. The last-mentioned preparation contains a little thorium. The radio-activity is greatest in the residue and least in the volatile body. The name *berzelium* is proposed for this third fraction of thorium.

A Simple Device for Illustrating the Periodic Law: CHARLES BASKERVILLE.

The device consists of blocks cut in length according to the atomic weight, taking one half inch for hydrogen. The blocks are planed, presenting flat surfaces corresponding to the valency. The electro-positive and negative properties are indicated by painting blue or red. When these blocks are arranged in an ascending series according to their heights, the resemblance of the properties of the ele-