# SCIENCE

A WEEKLY JOURNAL DEVOTED TO THE ADVANCEMENT OF SCIENCE, PUBLISHING THE OFFICIAL NOTICES AND PROCEEDINGS OF THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

EDITORIAL COMMITTEE: S. NEWCOMB, Mathematics; R. S. WOODWARD, Mechanics; E. C. PICKERING Astronomy; T. C. MENDENHALL, Physics; R. H. THURSTON, Engineering; IRA REMSEN, Chemistry; CHARLES D. WALCOTT, Geology; W. M. DAVIS, Physiography; HENRY F. OSBORN, Paleontology; W. K. BROOKS, C. HART MERRIAM, Zoology; S. H. SCUDDER, Entomology; C. E. BESSEY, N. L. BRITTON, Botany; C. S. MINOT, Embryology, Histology; H. P. BOWDITCH, Physiology; WILLIAM H. WELCH, Pathology; J. MCKEEN CATTELL, Psychology.

J. MCKEEN CAILED, ISJONOLOGJ

FRIDAY, OCTOBER 2, 1903.

#### CONTENTS:

Address of the President of the British Asso- ciation for the Advancement of Science: SIR NORMAN LOCKYER	<b>4</b> 17
The Expedition to the Bahama Islands of the Geographical Society of Baltimore: Dr. GEORGE B. SHATTUCK	427
Scientific Books:— Drude's Theory of Optics: Professor C. R. MANN. Oertel's Medical Microscopy: Dr. G. FRANKLIN WHITE	<b>432</b>
Scientific Journals and Articles	435
Societies and Academies:— Michigan Ornithological Club: ALEX. W. BLAIN, JR	435
Discussion and Correspondence: Michigan Plant Societies Again: Dr. Bur- TON EDWARD LIVINGSTON	435
Shorter Articles:— New Species of the Central American Rub- ber Tree: O. F. Cook. The Name of the Breadfruit: HENRY E. BAUM. Eucalypts in the Philippines: ROBERT E. C. STEARNS	436
Quotations:— Lord Salisbury as a Man of Science; Civil Engineers of the Navy	440
Geological Explorations in Egypt	441
The Elizabeth Thompson Science Fund	442
$Observatory  and \ \ Physical  Laboratory  at$	
Washburn College	444
The British Association for the Advancement	
of Science	444
Scientific Notes and News	
University and Educational News	448

ADDRESS OF THE PRESIDENT OF THE BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

#### II.

HOW TO GET MORE UNIVERSITIES.

What, then, is to be done? Fortunately, we have a precedent admirably in point, the consideration of which may help us to answer this question.

I have pointed out that in old days our Navy was chiefly provided by local and private effort. Fortunately for us, those days have passed away; but some twenty years ago, in spite of a large expenditure, it began to be felt by those who knew that in consequence of the increase of foreign navies, our sea-power was threatened, as now, in consequence of the increase of foreign universities, our brain-power is threatened.

The nation slowly woke up to find that its enormous commerce was no longer insured at sea, that in relation to foreign navies our own had been suffered to dwindle to such an extent that it was no longer capable of doing the duty which the nation expected of it even in time of peace. At first, this revelation was received with a shrug of incredulity, and the peace-atany-price party denied that anything was needed; but a great teacher arose; \* as the

\* Captain Mahan, of the U. S. Navy, whose book, 'On the Influence of Sea-power on History,' has suggested the title of my address.

MSS. intended for publication and books, etc., intended for review should be sent to the responsible editor, Professor J. McKean Cattell, Garrison-on-Hudson, N. Y.

book is unfortunate in this respect. The technique suggested in many cases, doubtless, will not be received with favor by experienced laboratory workers.

Claim to originality is made by the author with respect to the presentation of the subject only. On the whole, the book is written in a style which is clear and concise. Some of the unqualified statements should be modified to meet the prevailing opinion of to-day. To aid in a future edition we should call attention also to the lettering of the diagrams to represent optical phenomena of the microscope, which we believe to be inadequate and confusing.

A book compiled on the plan of this one will do good service in the place to which the author in the preface modestly assigns it: 'It is to the beginner in microscopy, and particularly to him who must work without the personal guidance of a teacher, that the book may prove of value.'

G. FRANKLIN WHITE.

## SCIENTIFIC JOURNALS AND ARTICLES.

The American Journal of Mathematics for October contains the following articles: 'The Plane Geometry of the Point in Point-Space of Four Dimensions,' by C. J. Keyser; 'On the Functions Representing Distances and Analogous Functions,' by H. F. Blichfeldt; 'Surfaces whose Lines of Curvature in One System are Represented on the Sphere by Great Circles,' by L. P. Eisenhart; 'On the Invariants of a Homogeneous Quadratic Differential Equation of the Second Order,' by D. R. Curtiss; 'Surfaces of Constant Mean Curvature,' by L. P. Eisenhart.

## SOCIETIES AND ACADEMIES. MICHIGAN ORNITHOLOGICAL CLUB.

AFTER a few years of apparent sleep, the Michigan Ornithological Club was reorganized at Detroit on February 13, 1903. The officers elected for the current year are: *President*, Adolphe B. Covert, Ann Arbor; *Vice-Presi*dent, Dr. Phillip E. Moody, Detroit; *Secre*tary-Treasurer, Bradshaw H. Swales, Detroit. Two permanent committees were created. The committee on Geographical Distribution consists of Dr. Charles C. Adams (chairman), Ann Arbor; Professor Walter B. Barrows, Agricultural College; Bryant Walker and B. H. Swales, of Detroit. The Bird Protection Committee consists of Edward Arnold (chairman), Battle Creek; Professor Walter B. Barrows, Agricultural College; James B. Purdy, Plymouth, to act in conjunction with Wm. Dutcher, chairman of the Protection Committee of the American Ornithologists' Union.

It was decided to continue the former club journal styled the Bulletin of the Michigan Ornithological Club, three numbers of which (Vol. IV.) have appeared so far. Alexander W. Blain, Jr., was made editor and business manager, and later J. Claire Wood, of Detroit, and Adolphe B. Covert, of Ann Arbor, were elected associates. The Bulletin is published by the club at Detroit as an illustrated quarterly devoted to the ornithology of the Great Lake region.

The prospects for the Ornithological Club in the Wolverine state seem most bright, and the society already has over one hundred members enrolled. Monthly meetings are held on the first Friday of each month at the Detroit Museum of Art and annual meetings will be held at the same time and place as the annual meeting of the Michigan Academy of Science. ALEX. W. BLAIN, JR.

DETROIT COLLEGE OF MEDICINE.

# DISCUSSION AND CORRESPONDENCE.

#### MICHIGAN PLANT SOCIETIES AGAIN.

THE thorough remodeling which my paper on the upland plant societies of Kent County, Mich.,\* received at the hands of Mr. Francis Daniels in SCIENCE for August 14, 1903, makes this note by the author seem necessary. In the first place, I hasten to acknowledge with thanks the two very bad blunders which the reviewer has pointed out. *Quercus ilicifolia* should read *Q. prinoides*, and *Vitis cordifolia* should be replaced by *V. riparia*.

In the original paper the author expressly

\* Annual Report State Board of Geol. Survey, Mich., 1901, pp. 81-103. Botanical Gazette, 35: 36-55. 1903.