Living Fossils: DR. DOUGLAS H. CAMPBELL.......................... 179
The American Association for the Advancement of Science:
Final Report on the Revision of the Constitution 181
Obituary:
Philip Fox: DR. JOEL STEBBINS. Recent Deaths ... 184
Scientific Events:
Scientific Research Fellowships in Great Britain;
The Registry of Veterinary Pathology at the Army
Institute of Pathology; The Mount Desert Island
Biological Laboratory; Latin-American Guggen-
heim Fellowships .................................... 186
Scientific Notes and News .................................. 188
Discussion:
Nomenclature of the Human Malaria Parasites:
Professor CURTIS W. SABROSKY and Dr. ROBERT
L. USINGER. A New Philosophy of Preventive
Medicine: MAJOR HERMAN S. WIGODSKY. Sex
Differences in the Science Talent Test: Dr. HAROLD
A. EDGERTON and Dr. STEWART HENDERSON BRITT.
Remarks on the History of Science in Russia: Pro-
fessor S. P. TIMOSHENKO and Dr. J. V. USPENSKY 190
Scientific Books:
Fatty Acids and Lipids: DR. R. G. SINCLAIR. Syn-
thetic Substances: DR. W. D. TURNER. Marine and
Air Navigation: LIEUTENANT ALTON B MOODY ... 194

Special Articles:
A Method of Prolonging the Action of Penicillin:
CAPTAIN MONROE J. ROMANSKY and GEORGE E.
RITTMAN. Inhibition of B Hemolytic Streptococci
Fibrinolysin by Trypsin Inhibitor (Antiprotease): 
DR. I. ARTHUR MIRSKY. Effect of Spinal Fluid
from Patients with Myasthenia Gravis on the Syn-
thesis of Acetylcholine in Vitro: DR. CLARA TORDA
and DR. HAROLD G. WOLFF 196
Scientific Apparatus and Laboratory Methods:
The Measurement of "Folic Acid": T. D. LUCKEY,
L. J. TEPLY and DR. C. A. ELVEHJEM. An In-
expensive Decompression Chamber: DR. F. R. STEG-
GERDA and DR. A. B. TAYLOR 201
Science News ........................................... 10

SCIENCE: A Weekly Journal devoted to the Advancement
of Science. Editorial communications should be sent
to the editors of SCIENCE, Lancaster, Pa. Published every
Friday by
THE SCIENCE PRESS
Lancaster, Pennsylvania

Annual Subscription, $6.00 Single Copies, 15 Cts.

SCIENCE is the official organ of the American Associa-
tion for the Advancement of Science. Information regard-
ing membership in the Association may be secured from
the office of the permanent secretary in the Smithsonian
Institution Building, Washington 25, D. C.

LIVING FOSSILS
By DR. DOUGLAS H. CAMPBELL
STANFORD UNIVERSITY

The simplest organisms, like bacteria and many
protozoa and unicellular fresh-water green algae,
probably have changed but little during the ages that
have intervened since they first came into existence,
as their aquatic environment has remained much the
same.

A study of the fossil record indicates a similar conser-
vatism in the land plants, including the angio-
spermous flowering plants, whose earliest known fossil
remains from the Cretaceous belong to genera still
existing. Of course they must have been preceded by
earlier Mesozoic types, but as yet these are unknown.

The importance of fossils, both plant and animals,
as indicators in geological formations is of course
recognized, but the tendency to emphasize the greater
importance of animal fossils might perhaps be ques-
tioned.

The fossils of the late Mesozoic and early Tertiary
are especially important, since it was in these eras
that the origin and evolution of the now dominant
angiosperms and mammalia were inaugurated.

Many common American trees, like the sycamore,
oak, elm, willow, beech, tulip-tree (Liriodendron) and
others, are found in the Cretaceous, and it is probable
that the forests of the Cretaceous and early Tertiary
were not very different from those of the present
eastern United States. Since these trees have re-
mained practically unchanged since the late Mesozoic
to the present time, they might be termed "living
fossils."

The animal life, however, has altered radically. The
dinosaurs, which reached their culmination in the
Jurassic and Cretaceous, have given way completely
to the mammals which at the period of the dinosaur