

# Philosophy Science



VOLUME 22, NUMBER 4

Published Quarterly by The Williams & Wilkins Company, Baltimore-2, Maryland

Copyright 1955, The Williams & Wilkins Company

October, 1955

# PHILOSOPHY OF SCIENCE

#### ORGAN OF THE PHILOSOPHY OF SCIENCE ASSOCIATION

CO-SPONSORED BY THE INSTITUTE FOR THE UNITY OF SCIENCE AND BY
SECTION L OF THE AMERICAN ASSOCIATION FOR THE
ADVANCEMENT OF SCIENCE

#### **EDITORS**

C. West Churchman, Case Institute of Technology, Cleveland 6, Ohio, Editor in Chief Gustav Bergmann, Department of Philosophy, Iowa State University, Iowa City, Iowa

ARTHUR BURKS, Department of Philosophy, University of Michigan, Ann Arbor, Michigan

HENRY MARGENAU, Department of Philosophy, Yale University, New Haven, Connecticut

ERNEST NAGEL, Department of Philosophy, Columbia University, New York, New York

CHESTER T. RUDDICK, Lake Erie College, Painesville, Ohio

#### BOOK REVIEWS:

J. S. MINAS, Ohio State University, Columbus, Ohio

#### GOVERNING BOARD OF THE ASSOCIATION:

HENRY MARGENAU, President (term expires Jan. 1, 1958) LEWIS ZERBY, Secretary-Treasurer (1961)

Gustav Bergmann (1956)

SEBASTIAN B. LITTAUER (1956)

F. S. C. NORTHROP (1956)

ARTHUR BURKS (1958)

C. West Churchman (1958)

PHILLIP FRANK (1958)

ERNEST NAGEL (1958)

#### **EDITORIAL CONSULTANTS:**

| ERIC T. BELL       | C. J. Ducasse    | I. LANGMUIR       |
|--------------------|------------------|-------------------|
| A. C. BENJAMIN     | HERBERT FEIGL    | CHARLES W. MORRIS |
| L. von Bertalanffy | R. A. Fisher     | OLIVER L. REISER  |
| NIELS BOHR         | R. W. GERARD     | D. Runes          |
| RUDOLF CARNAP      | J. B. S. HALDANE | R. J. Seeger      |
| W. T. Crozier      | W. Kohler        | M. S. VALLARTA    |

PAUL WEISS

F. Z. Zwicky

Sustaining Institutions: Case Institute of Technology and State University of Iowa Entered as second class matter November 25, 1953, at the Post Office, at Baltimore, Maryland, under the Act of March 3, 1879

Made in United States of America

# **CONTENTS**

| An Essay on the Relativity of Categories. L. von Bertalanffy 243                     |
|--|
| George H. Mead and the Philosophy of Science.  John C. McKinney 264                  |
| Discussion: What is a Population? T. A. Goudge 272                                   |
| Control and Unfreedom. Felix E. Oppenheim 280  |
| The Subjective Tradition in Phenomenological<br>Psychology. John Bucklew 289         |
| Report on the "International Congress for the Philosophy of Science". Max Rieser 300 |
| War Games and Operations Research. Walter E. Cushen 309                              |
| Discussion: Vectorial Composition of Velocities in Relativity. Boris Leaf 321        |
| Book Reviews 325   |
| Books Received 329   |
| News and Notices 331   |
| Index 333  |

Copyright 1955, The Williams & Wilkins Company

Edited by CHARLES F. BEHRENS, M.D., Rear Admiral, MC, U.S. Navy, Staff Medical Officer, Eastern Sea Frontier. Formerly: Director, Atomic Defense Division, Bureau of Medicine and Surgery, Navy Department; Commanding Officer, Naval Medical Research Institute, National Naval Medical Center, Bethesda, Md. \* With 20 contributors who are all nationally known specialists in their respective fields.

## The ATOM Knocks at the Doctor's Door



SECOND EDITION

# ATOMIC MEDICINE

Atomic energy has brought to every physician new problems, brilliant prospects, and inescapable responsibilities.

In the extensively revised second edition you will find an amazingly clear and understandable presentation of all the latest atomic information that is applicable to medicine. Twenty expert contributors, under the able editorship of Admiral Behrens, spread before you everything that is known to date in this field that is really a whole new concept of medicine—one that is becoming increasingly intricate and complex. In language that is surprisingly easy to read, they give you complete and fascinating discussions of such vital topics as:

Prevention and cure of radiation-caused damage to the human body.

Use of radioactivity as a medical tool.

Future possibilities for diagnosis and treatment.

The role every physician may be called on to play in civil defense.

An enumeration of the contents, however, cannot entirely explain the real fascination of this intriguing book. It combines under one cover not only the gist of the recent scientific literature, but also a properly aligned summary of the many popular non-medical articles from which the average physician may have gleaned information. Therefore, it is uniquely qualified to bring you—in addition to the newer physical concepts and pathological advances—that calm philosophical attitude which is so needed today, and which can come only with a clear understanding.

645 pp. 134 figs. \$11.00

### THE WILLIAMS & WILKINS COMPANY

Mt. Royal and Guilford Aves.

Baltimore 2, Maryland