# The May TECHNOLOGY REVIEW

RELATING TO THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY

# How civilized are we?

"THE extent to which the world has changed the laborer who uses his body into the workman who uses his head, is the index of civilization."

So said Edward Everett Hale.

Electricity is gradually substituting its untiring energy for muscular effort in every branch of industry; it needs only to be directed by human intelligence. Its use is, therefore, a significant "index of civilization."

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Perhaps the time will come when we can point to completely electrified industry as our answer to the question "How civilized are we?"

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TECHNOLOGY REVIEW

M I T CAMBRIDGE

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# *The* TECHNOLOGY REVIEW

*Relating to the Massachusetts Institute of Technology*

VOLUME 30 NUMBER 7


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"Narrow Cove" by Charles H. Woodbury, '86. *Courtesy, Charles E. Goodspeed & Company.*





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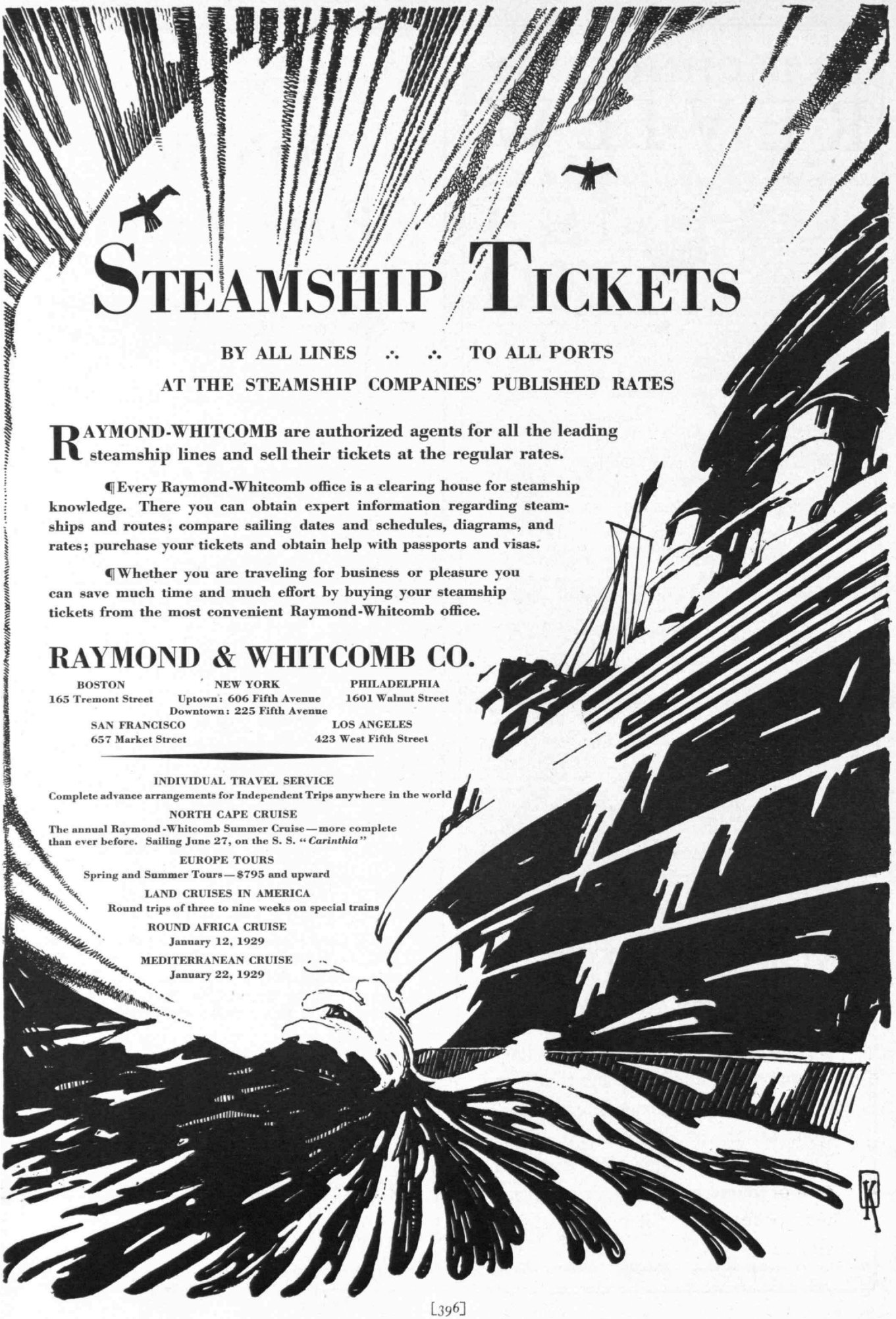

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# The Tabular View

LAST month comment was made on the far flung circulation of The Review: copies regularly go into more than thirty foreign countries, into every American state and nearly every possession. It follows that a circulation so widespread attracts advertising from many fields. An examination of The Review's advertising list shows almost every type of commodity and institutional advertising that is of interest to a circulation predominantly male. Of course advertising of an engineering and scientific nature takes first place, but in addition is a diversified list that includes shoes and ships and sealing wax; garters, suits, and correspondence courses; preparatory schools, travel agencies, and professional services; and so on down the whole scale. ¶ Eighty-four different firms or individuals have inserted advertisements to date in this current volume of The Review. This figure, not including the July issue, represents an increase of twenty-four over the entire preceding volume (1926–1927) and of fifteen over the largest number in the highest previous volume (1923–1924). Only nine of last year's list dropped out, so the present figure includes thirty-five accounts new since last volume.

CONTRIBUTORS to this issue of The Review include the Assistant Secretary of the Navy for Aëronautics, two professors at the Institute, a naval architect, and a manufacturer. ¶ The Hon. EDWARD P. WARNER, '17, is on leave of absence as Head of the Department of Aëronautical Engineering at the Institute while he is acting as Assistant Secretary of the Navy for Aëronautics. ¶ MURRAY P. HORWOOD, '16, is Assistant Professor of Biology. He contributes a book review discussing the growth of population. ¶ MILES S. SHERRILL, '99, is Professor of Theoretical Chemistry. He reviews "The World of Atoms" by Arthur Haas. Professor Sherrill recently gave a Popular Science Lecture on "Facts and Fancies Concerning the Structure of the Atom." ¶ J. W. POWELL who writes the Report on Naval Architecture and Marine Engineering, is Chairman of the Visiting Committee of that Department. He has long been interested in shipbuilding and naval architecture. ¶ A. FARWELL BEMIS, '93, of the Executive Committee of the Corporation, and Chairman of the committee of twelve appointed to study the dormitory situation at the Institute, prepared the report published on page 411.

AT all times The Review Editors welcome criticism and comment directed at the contents of the magazine. At best the editorial point of view is a worm's eye view; it is difficult to visualize panoramically the world of the reader in all its varied and unsuspected aspects, and consequently difficult to load and aim editorial matter so that it will be most effective. Criticism from readers has prompted many new features in The Review and it has deleted others; always it has contributed toward the betterment of the magazine. It is guaranteed that all letters resulting from this confession will be read and even answered.

# 9 CLIENTS
# 73 CONTRACTS
# VALUE $180,000,000

Work now in progress brings our total for the following clients to $180,000,000.

American Sugar Refining Company
Central Indiana Power Company
The Edison Electric Illum'g Co. of Boston
Ford Motor Company
The Hartford Electric Light Company
The Philadelphia Electric Company
Potomac Electric Power Company
Southern California Edison Company
The Western Union Telegraph Company

There are 73 contracts, an average of 8 contracts per client. The list shows the national extent of our service. Some of the work is abroad. Contracts include new power stations both steam and hydroelectric, extension and modernizing of old power stations, the construction of manufacturing plants, service buildings, office buildings, docks and a variety of other work.

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NEW YORK, 120 Broadway
CHICAGO, First National Bank Bldg.

PITTSBURGH, Union Trust Bldg.
SAN FRANCISCO, Holbrook Bldg.
PHILADELPHIA, Real Estate Trust Bldg.

*The* TECHNOLOGY REVIEW

VOLUME 30 · MAY, 1928 · NUMBER 7

# The Trend of Affairs

PHILOLOGICALLY as well as educationally, a professorship, the Chair of Humanics, recently endowed and established at the Institute, is of more than passing interest. "Humanics" is defined by the Century Dictionary as "the doctrine or science of human nature or of matters relating to humanity." Few other dictionaries contain the word and when it is included it is classified as "rare." In the official announcement of the subject, it was described as offering "systematic preparation to meet the problems of human relationship in business and industry."

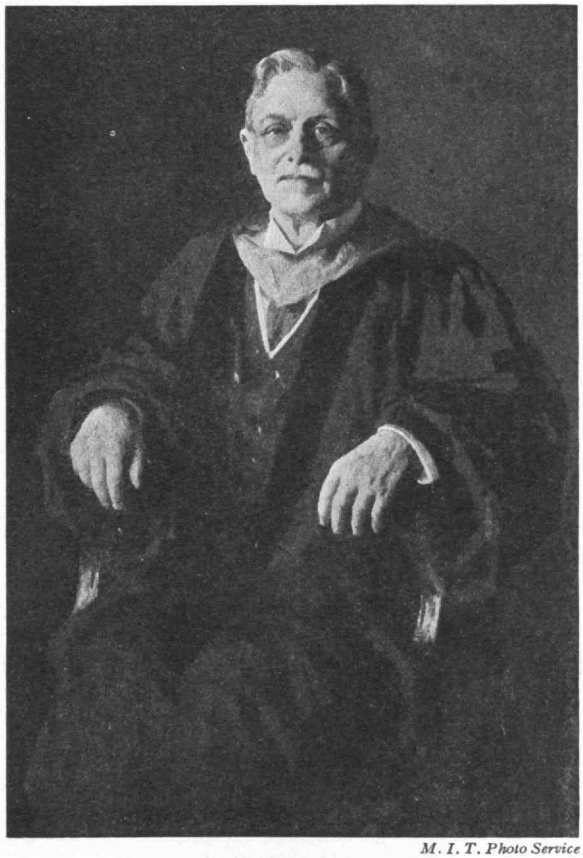
This latest venture of the Institute, certainly new and unique, was recently suggested and endowed by William E. Nickerson, '76, Vice-President of the Gillette Safety Razor Company. To teach this somewhat tenuous but vital subject, the Institute has secured Charles R. Gow, consulting engineer of Boston, inventor of the Gow caisson method of installing foundations, and a special lecturer on Foundations at Technology from 1913–20. Aside from his engineering activities, Dr. Gow has participated actively in civic and governmental affairs and has taken part in the solution of problems involving industrial relations. He is also the author of a great variety of articles on economics and related topics. As now planned, the subject will be given, beginning next autumn, to students in their third and fourth years.

## *S. R. O.*

IN 1913 Technology inaugurated graduate instruction in aëronautical engineering; in 1926 an undergraduate Course was established; in 1928, the Institute finds on her rolls forty-six per cent of all the students of aëronautical engineering in the United States. Despite the increased facilities offered by the dedication next month of the Daniel Guggenheim Aëronautical Laboratory, the Corporation, therefore, finds it imperative to place a limitation on the number of undergraduates who may be accepted in order that the highest standards of instruction may be maintained and that students of exceptional promise may be afforded every opportunity for development.

As the pioneer institution in the field of aëronautical engineering education, the Institute aims to train selected men for leadership and original work instead of training a larger group of applicants of lesser ability for routine positions. Limitation of numbers will operate to make smaller class groups and will also make for broader research opportunities in important problems of aërodynamics.

In accordance with this policy no restriction is being placed on the number of graduate students. Men transferring into the upper years of Course XVI from other courses or from other colleges will be accepted, providing their records are definitely above the average. Chiefly, the restriction will apply to freshmen registering for the sophomore year.



*M. I. T. Photo Service*

FORMER ACTING PRESIDENT

*Painted by Frank W. Benson, this portrait of Elihu Thomson has been presented to the Institute by the General Electric Company*

## *Gliding*

AS FAR back as 1922, the Aëronautical Engineering Society designed and built two gliders which were sent to meets at Clermont-Ferrand in France and to Rhön in Germany, and in both instances they were the only Americans to enter the competitions. A crew chosen from among the under-

graduate members of the Society with Edmund T. Allen, '23, as pilot returned with the bronze medal of the *Aëronautique Club de France*, for its work in the contest at Clermont-Ferrand. There no less than fifty machines were entered, an impressive array. The Technology glider had the lead at the beginning, but was subsequently passed by the French machines.

Before midsummer, Boston and New England again may see experiments with motorless airplanes. At present the undergraduates of the Aëronautical Engineering Society have under construction a training glider, and plans call for the building of a more delicate model for racing. A recent visit by Robert A. Pope, '02, President of the American Motorless Aviation Club, gave a new impetus to the project. He was accompanied by C. K. Froelich, a Lieutenant of Infantry in the German army during the World War and Major Vergne Chappelle, President of the Greater Brooklyn Flying Club, both of whom are Vice-Presidents of Mr. Pope's organization.

Mr. Froelich announced that three German gliding experts would arrive in this country on April 29, bringing nine gliders of five different designs. These are to be used for exhibition flights throughout the United States, the first demonstrations being held in New England in coöperation with the Institute's Aëronautical Engineering Society.

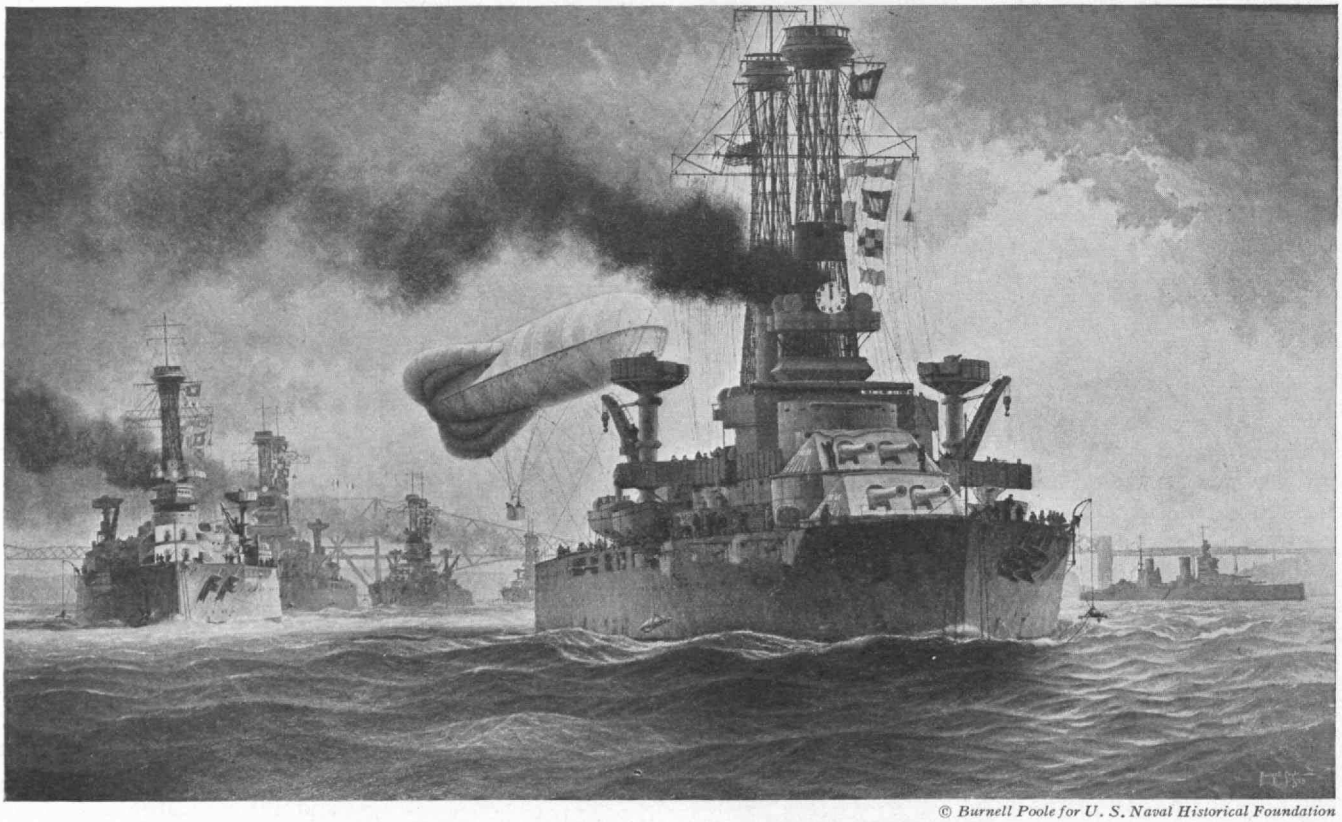
Motorless flying has been more highly developed in Germany than elsewhere due to the limitations imposed by the Treaty of Versailles. The sport is thoroughly organized and flourishes particularly in the Wasserkupfe region. There, due to the air currents in favorably shaped valleys, gliders have maintained soaring flight for more than fourteen hours, traveling from valley to valley, using ascending currents to gain altitude enough to coast through to other valleys. By repeating the process back and forth a single flight has covered a total distance of 300 miles.

## *Biocinema Laboratory*

MEMBERS of the Department of Biology and Public Health are at present coöperating with the Eastman Kodak Company in the development of pictures dealing with the subject of respiration and with the circulation of the blood, and designed to be used in the teaching of hygiene and similar subjects.

Beginning in 1921, the Department started the production of a series of biological and public health films designed for educational purposes. A group of three films was initially produced strictly for school use, and these constituted the first contributions of the sort made by an American institution of learning to visual education.

Latterly, while other colleges, notably Harvard University, have engaged themselves similarly, the Institute's Biocinema Laboratory has come to be an important source of educational films and consequently has been occupied with the development of many and varied studies. Films have been prepared dealing with the nature of bacteria, the disposal of sewage, the diphtheria organism, the preparation of antitoxin and





SIXTH BATTLE SQUADRON OF THE GRAND FLEET

*First of a series in oils of the United States Navy in the World War painted by Burnell Poole, '06, Lieutenant Commander, U. S. N. R. It depicts the Squadron headed by the U. S. S. New York leaving the Firth of Forth for patrol duty in the North Sea*