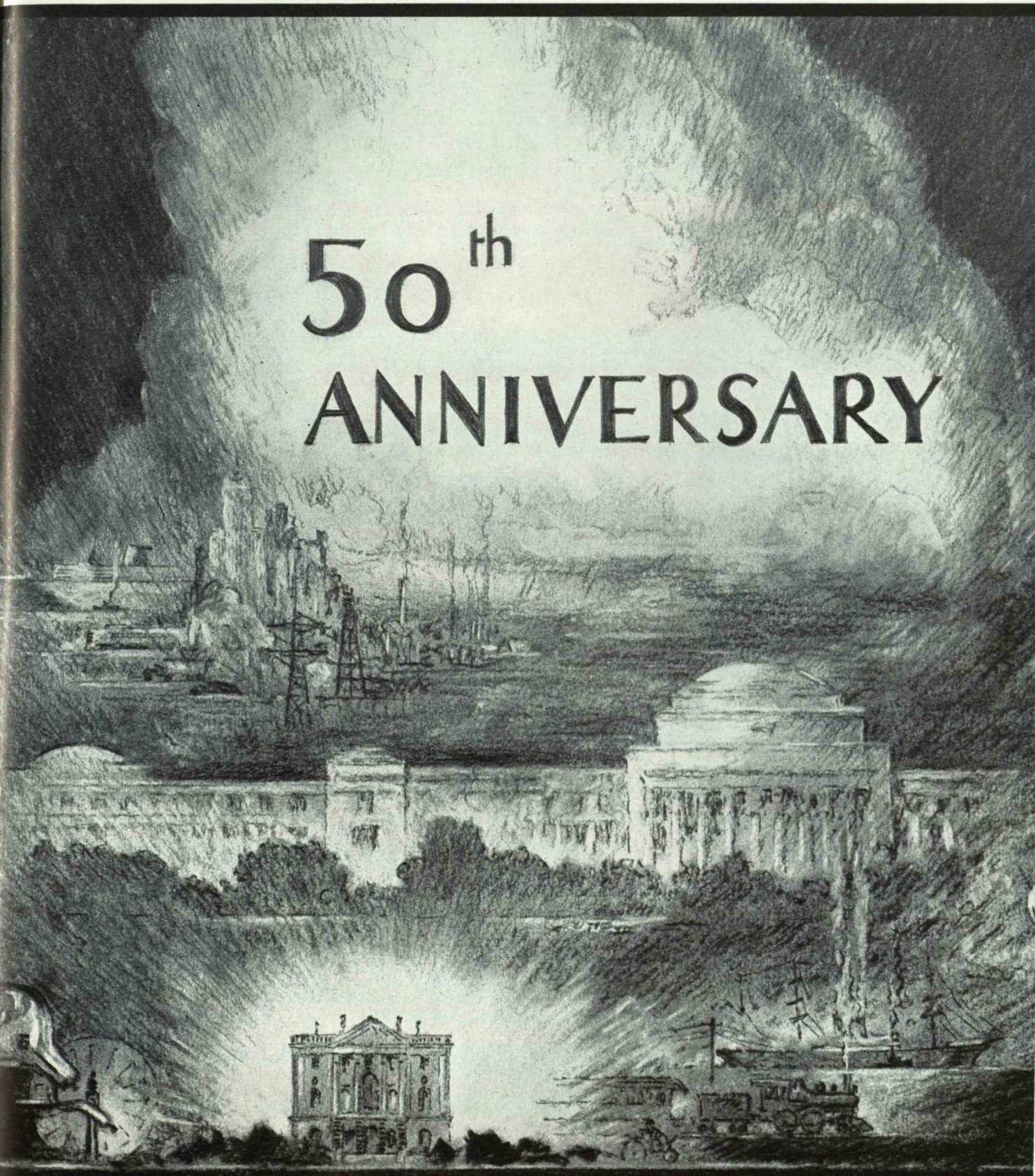
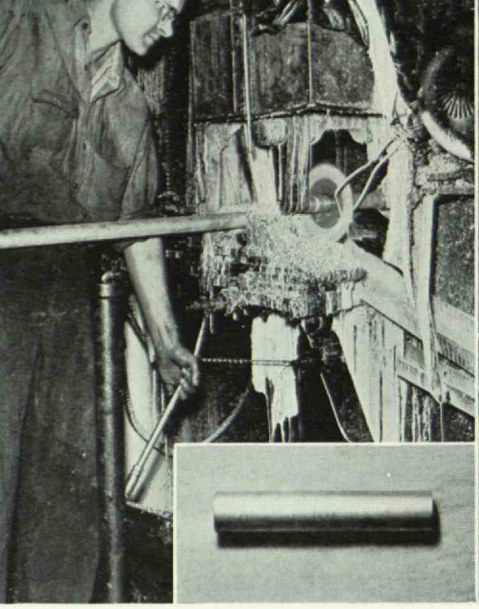
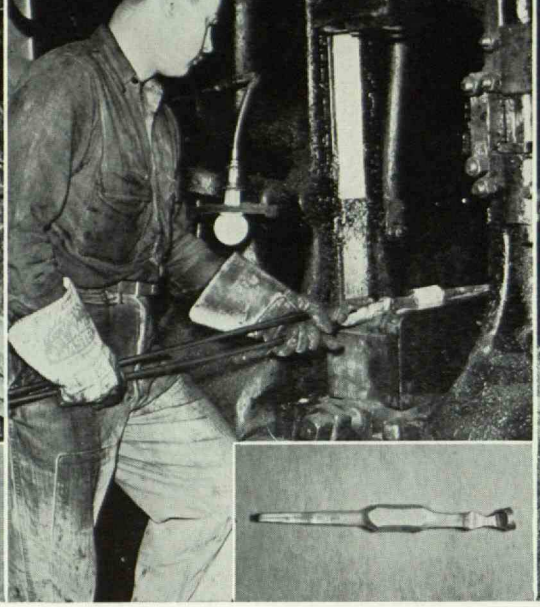
TECHNOLOGY
REVIEW
January 1949

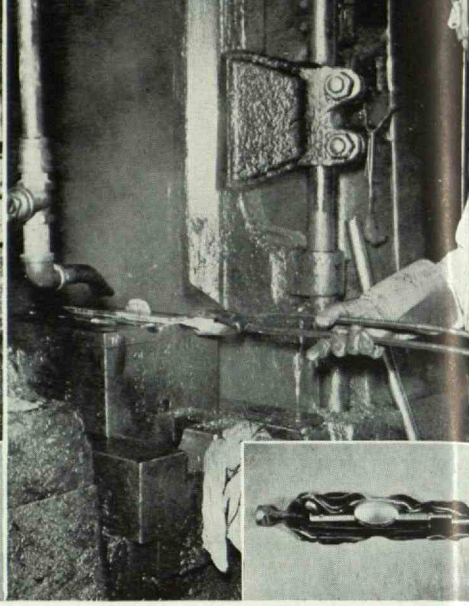




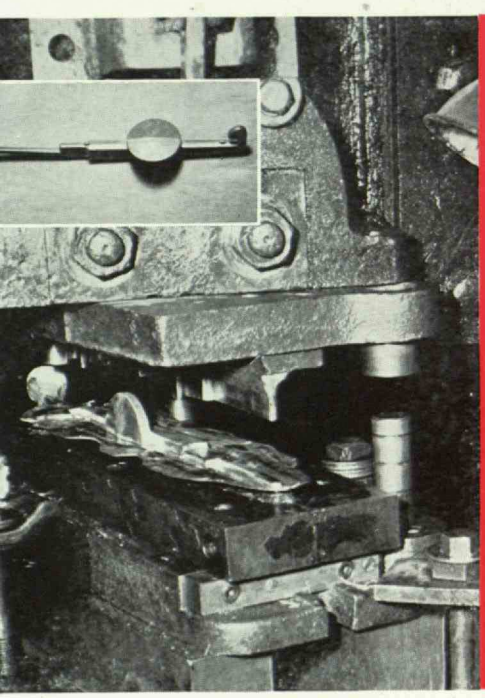
Cutting Bar



Lengthening and Shaping



Shaping to the Die



Trimming the Flash

FORGING ALUMINUM

into

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FORGINGS IN ALUMINUM — BRASS — BRONZE — COPPER — MAGNESIUM — MONEL — ALLOYS

MACHINING FACILITIES

THE TECHNOLOGY REVIEW, January, 1949. Vol. LI, No. 3. Published monthly from November to July inclusive at 8 Harmony Place, Brattleboro, Vt. Publication date: twenty-seventh of the month preceding date of issue. Annual subscription $3.50; Canadian and Foreign subscription $4.00. Entered as second-class matter at the Post Office at Brattleboro, Vt., under the Act of March 3, 1879.

Pulverizing
— materials of Industry

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In the development of this vital process, the Raymond Pulverizer Division of Combustion Engineering has been in the forefront for more than sixty years. It is, today, the unquestioned leader in the production of universal grinding equipment. C-E Raymond roller, hammer and bowl mills deliver products produced to specified refinement . . . from coarse granules to particles finer than 4-one hundred thousandths of an inch.

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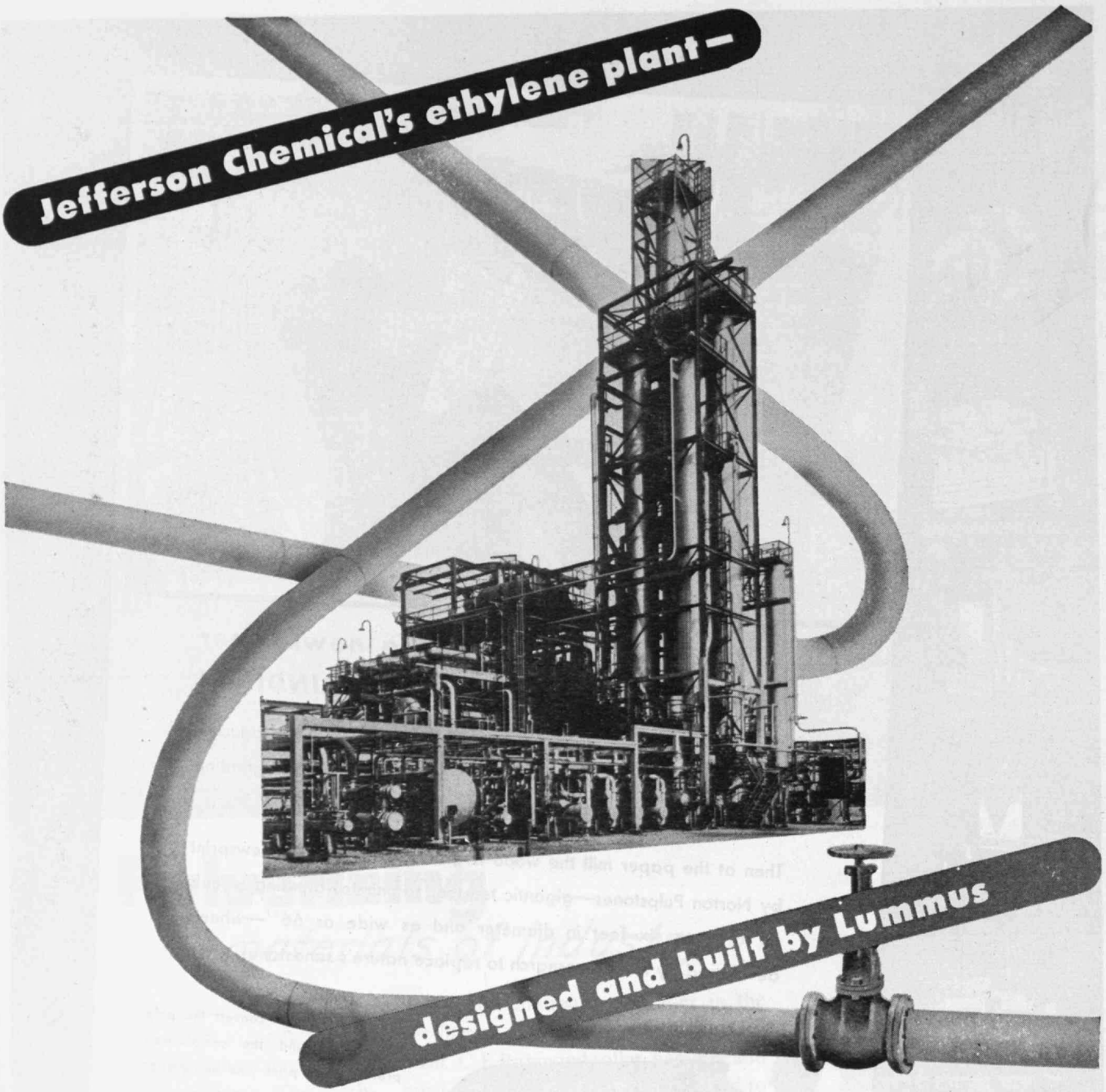

Large ethylene plants are much like big petroleum refining units.

An ethylene plant must be designed for high yields, varying charge stock compositions, economical operation and minimum investment costs. Fundamental design must take a long term view of the plant—ease of operation, long on-stream periods, minimum turnaround time and low maintenance costs.

Long range thinking, good engineering, careful planning by Jefferson Chemical Company and Lummus are reflected in the performance of this ethylene plant at Port Neches. This plant is producing high yields of ethylene from varying charge stock compositions. When shut down for scheduled inspection after five months initial run, turnaround was completed in about fourteen days. Examination showed equipment to be unusually clean and in good mechanical condition.

Playing an important part in the high yields of this ethylene plant are the Lummus Cracking Heaters, especially designed to obtain required temperature-time relationship with minimum coke deposition. On-stream periods of two months have been obtained and there are good possibilities of extending these periods.

Including an ethylene plant now under construction, Lummus has designed four plants for the production of ethylene from petroleum, with a total capacity of approximately half million pounds per day.

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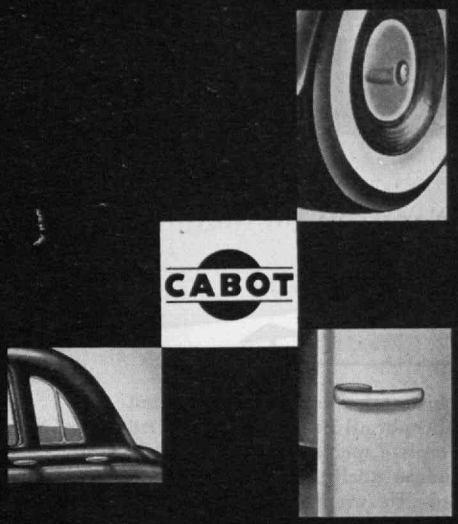

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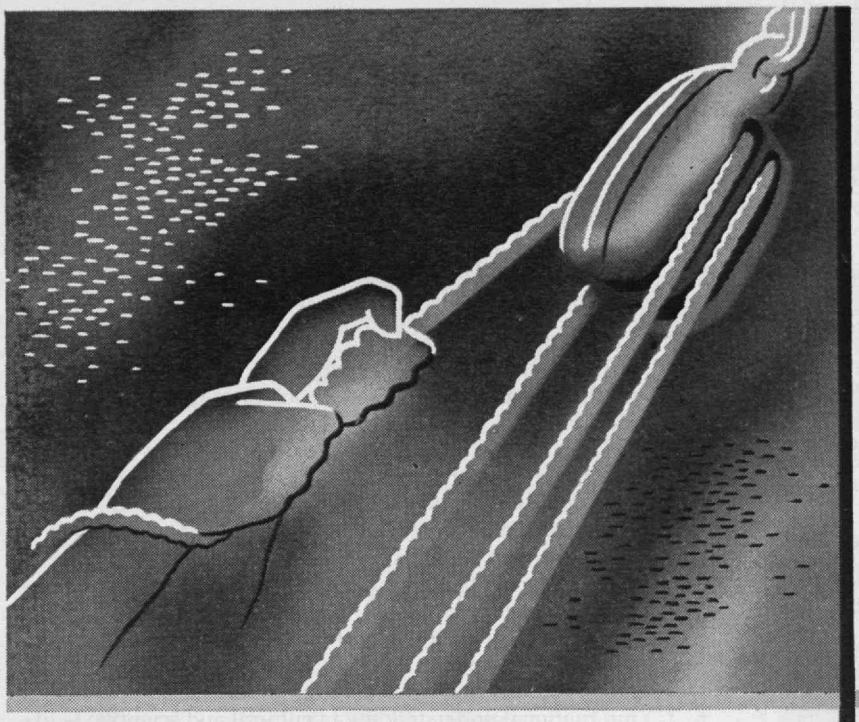
THE TABULAR VIEW

Editor-Publisher. — Successively student of architecture, infantry officer in World War I, assistant director of the Division of Industrial Coöperation, assistant dean of students, editor of The Review, dean of students, publisher of The Review, chairman of the Technology Loan Fund, and executive vice-president of the Alumni Association — all at the Institute, with the obvious exception of war service — H. E. LOBDELL, '17, has been associated with The Review for half of its five-decade existence. Mr. Lobdell records (page 155) the significant events in The Review's struggle to provide a chronicle of events relating to M.I.T., its Alumni, and matters of scientific and technical interest.

Editor-Poet. — This month, The Review breaks its practice of hewing strictly to prose, and presents (page 161) a piece on geology and engineering construction in the language of a poet by former Review editor F. G. FASSETT, JR. Upon acquiring a youthful taste for printer's ink in the Waterville (Maine) *Sentinel*, which his father edited, Mr. Fassett studied at Colby College and took graduate work at the University of Maine and at Harvard University. He was also reporter, correspondent, and editor of Maine newspapers before becoming a professor of English at M.I.T. In 1945, Professor Fassett became director of the Office of Publications and Public Relations of the Carnegie Institution of Washington.

Editor-President. — Third of The Review's former editors to be represented in this issue is JAMES R. KILLIAN, JR., '26. Bespeaking the independence for which New England has been so well known, President Killian, whose honors include the degree of doctor of engineering from Drexel Institute conferred on December 14, presents a stout case (page 162) for strongly financed, privately endowed institutions of learning. Dr. Killian's administration of Institute affairs is widely known. In this column, we emphasize his earlier work as writer on topics in science and engineering, teacher of journalism, editor of The Review, past national vice-president of the honorary journalistic fraternity, Pi Delta Epsilon, past chairman of the Board of Publication for The Technology Press, and (with Harold E. Edgerton, '27) coauthor of *Flash!* — a beautifully executed volume on the technique of modern high-speed photography.

Editor-Professor. — Not only because he is author of many scientific papers and two volumes on science (*Atoms in Action* and *How Things Work*) does GEORGE R. HARRISON, Dean of Science, qualify under the boldface paragraph headings of this page. He also qualifies as valued contributor to The Review, and if not one of its former editors, Dean Harrison is editor of the *Journal of the Optical Society of America*. Prior to becoming dean of science in 1942, he was professor of physics. In his sprightly pronouncements (page 165) Dean Harrison views the Institute, and some of its administrative leaders, with kindly whimsey.



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MAIL RETURNS

Bread upon the Waters

[*Letters such as the following from the president of the Republic of Italy, addressed to Dr. Compton, continue to indicate the worthwhile value of undergraduate ideas as expressed by the Foreign Student Summer Project which was effected last summer.* — Ed.]

FROM LUIGI EINAUDI:

It was very kind of you to send me, through the courtesy of Gian Federico Micheletti, your message of September 20, 1948.

I was deeply interested in hearing, from the description contained in your letter and from the additional explanatory details given to me by Mr. Micheletti, of all the activity carried out by M.I.T. in the field of the exchange of ideas between students of different countries, and particularly as far as the group of the Italian postgraduate students is concerned.

Not only as a former professor in the Polytechnical Institute of Turin, but also as a constant and sincere promoter of any initiative aiming to the strengthening of international understanding in cultural and scientific fields, I wish to express to you my personal appreciation for the advantageous work done by the Institute of Technology with such high purpose. I consider it a real privilege that the Italian students were the guests of your institution during the past summer.

My best wishes for the increasing success of your iniatives and for your personal prosperity.

Rome, Italy

Timing

FROM DONALD R. STEVENS, '11:

May I compliment Ward Allan Howe not only for his excellent photograph on page 94 of the December, 1948, Review, but also for his choice of "The Invader" as the title.

I wonder whether he took the picture first and then thought of the title, or whether he thought of the title and then waited for the proper timing of train, sky, and tranquility. Rarely have I seen a photograph so beautiful, fully equaled by a title so inspiring.

Ridgewood, N.J.