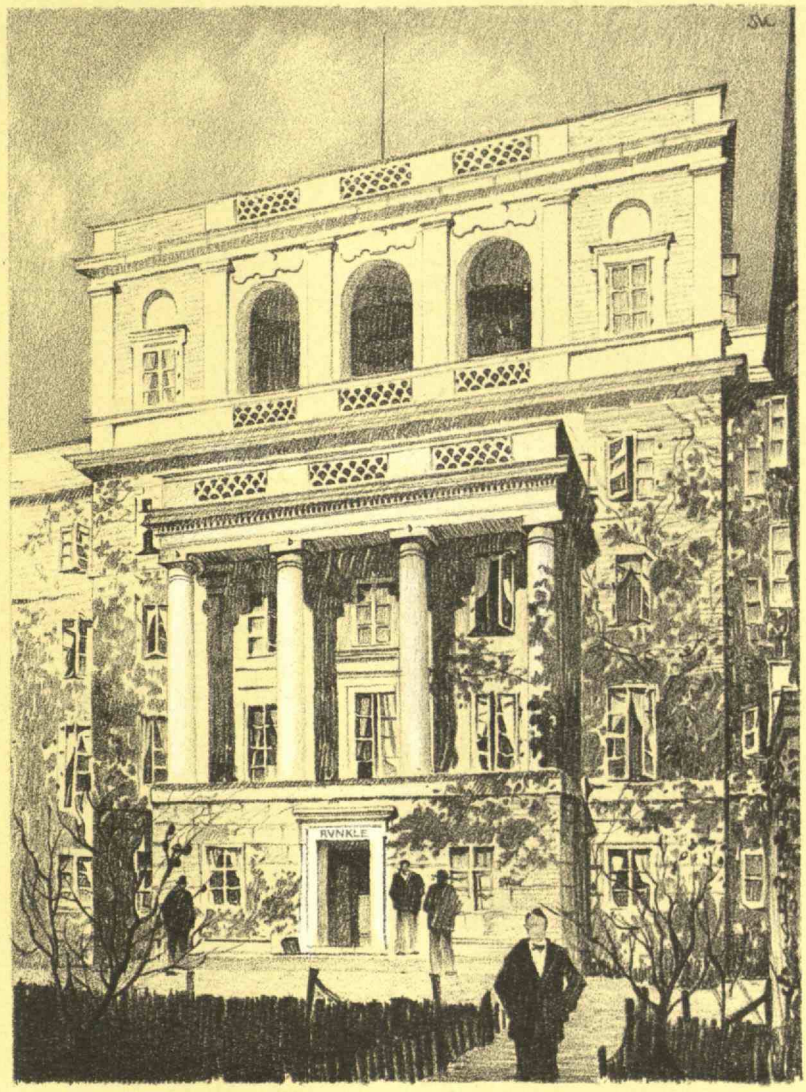
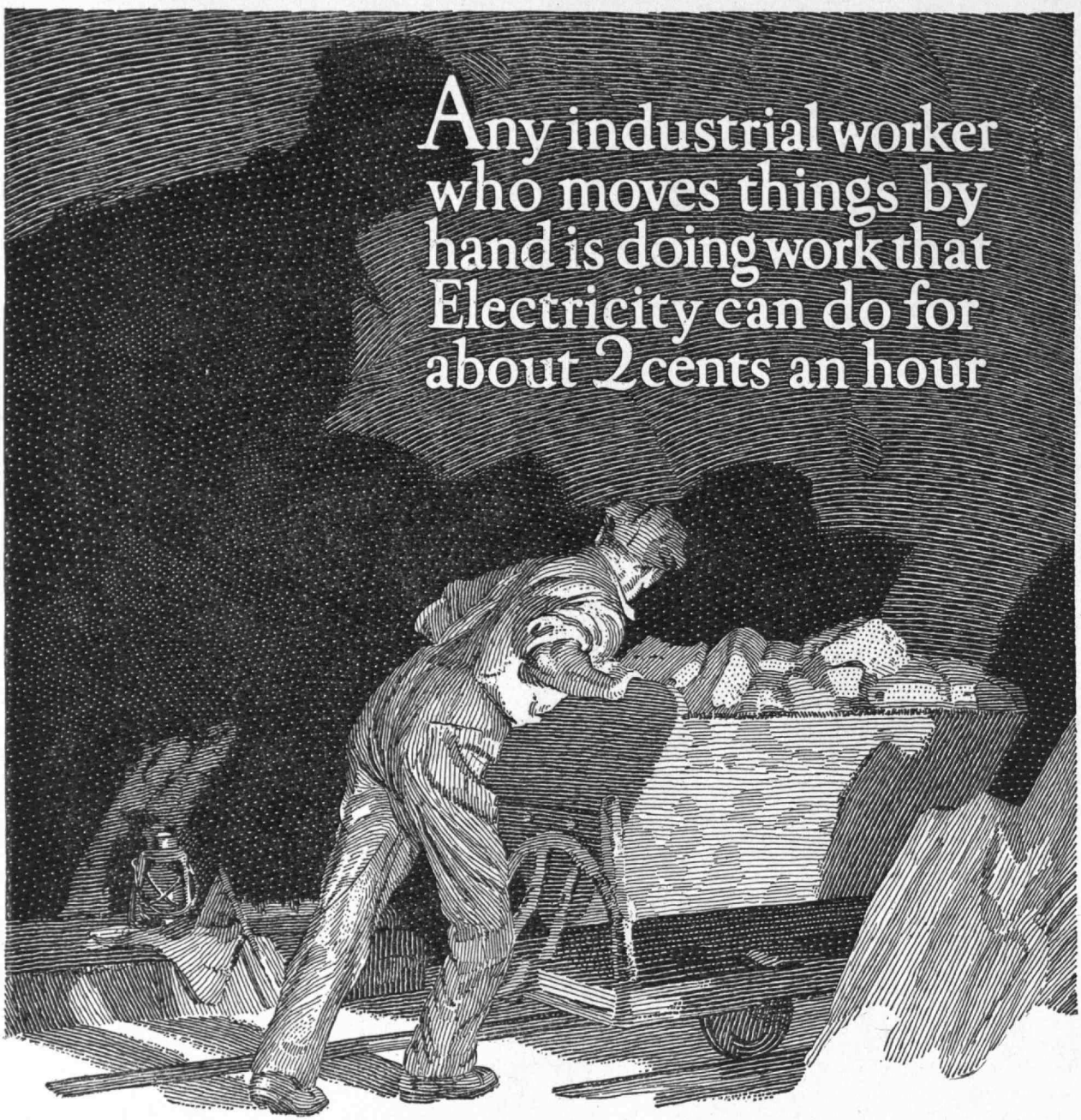
THE TECHNOLOGY REVIEW



RUNKLE HALL: DORMITORIES BY SAMUEL CHAMBERLAIN, '18

MAY 1927

RELATING TO THE
MASSACHUSETTS INSTITUTE OF TECHNOLOGY



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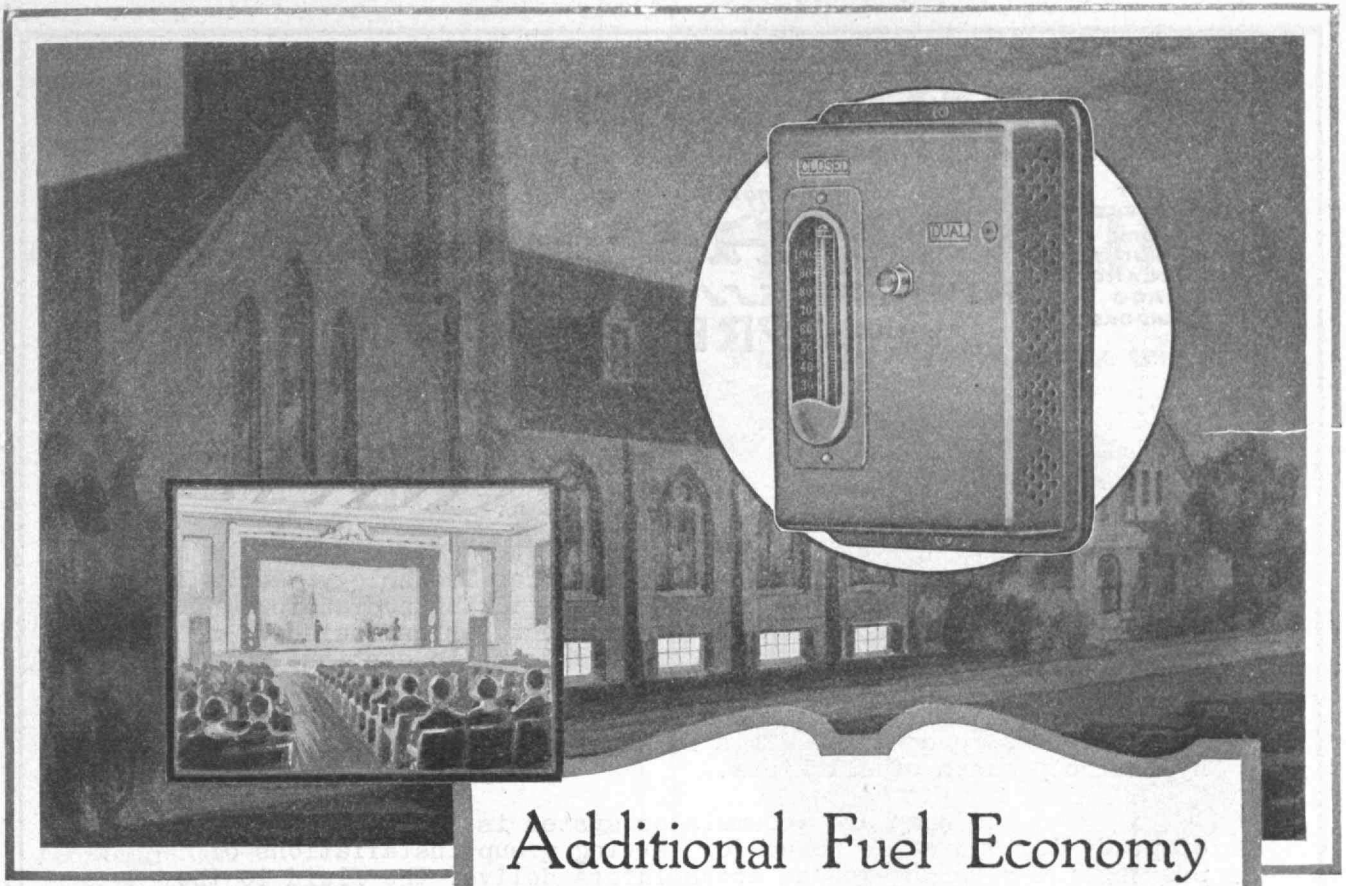

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ENGINEERING HEADQUARTERS

Twenty East Broad,
Columbus, Ohio,
May 1, 1927.

Dear Alumni:-

Here we are at the end of another Technology year. I've also completed one Volume of the "Review" talking hydraulic presses. The interest shown in this subject, as indicated by my correspondence with many of you, encourages me to continue this series.

This time let's consider the general subject of hydraulic pressure control. This is important in the operation of hydraulic presses of all kinds.

The pump and accumulator system is the standard method of producing hydraulic power for serving group installations of presses. The weight-loaded accumulators deliver the fluid to the presses at essentially a constant peak pressure.

With such a constant pressure supply, there is the problem of regulating the total pressure exerted by each press to meet varying production requirements, governed by changes in the size and character of the work. The common method of regulating final pressure has been the throttling of the line pressure with hand valves.

Fig. 2636

To eliminate the uncertainties of the human element incident to manual throttling, my Company has developed an automatic regulating and reducing valve for high hydraulic pressures. It is the first of its kind for this class of service.

The amount of reduction of pressure is adjustable by means of a hand wheel, at the top of the valve, as shown by the photo at the left. Once set, it is automatic and positive in action. The reduction in pressure may be down to as low as one fifth of the maximum. There are very few parts, and only one - a small, renewable steel ring - subject to wear.

If you use hydraulic presses at all, be sure to write me for further information. I'll add your name to our magazine mailing-list, too.

Yours for Tech.
Howard F. MacMillin
II-21.

Howard F. MacMillin,
Vice-Pres. in charge of Sales,
The Hydraulic Press Mfg. Co.

The TECHNOLOGY REVIEW

Relating to the Massachusetts Institute of Technology

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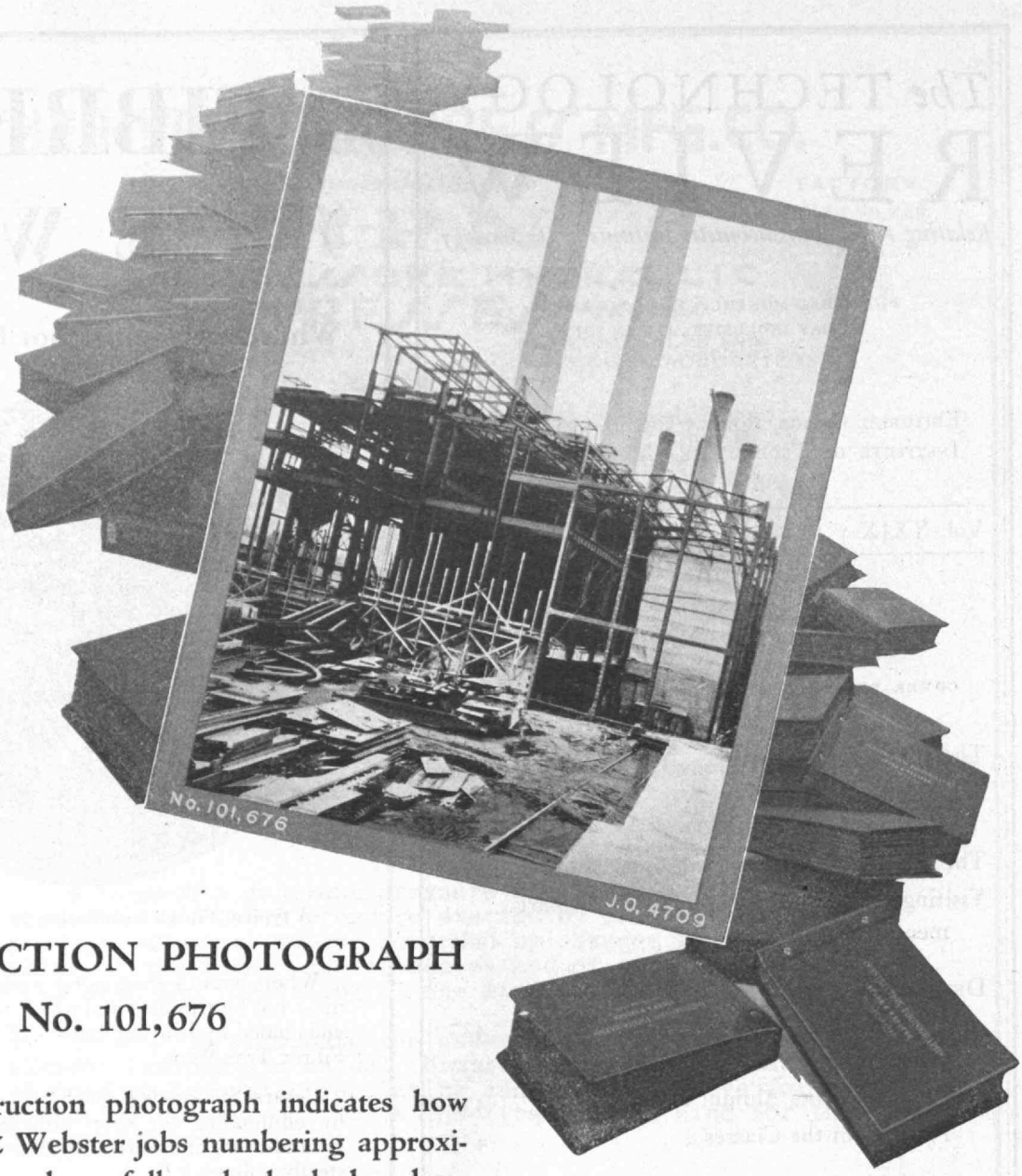

CONSTRUCTION PHOTOGRAPH
No. 101,676

THIS construction photograph indicates how the Stone & Webster jobs numbering approximately 5,000 have been followed, checked and reported to clients during progress. Behind such details is the accumulated experience of 39 years on the construction, reconstruction and extension of steam power stations, water power developments, transmission lines, industrial plants, office buildings and miscellaneous structures.

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The TECHNOLOGY REVIEW

VOLUME 29 · MAY, 1927 · NUMBER 7

The Trend of Affairs

Infirmary

NEGOTIATION lasting for three years now brings the plans for Technology's infirmary notably closer to reality. Save for the fact that the official donation and acceptance have not yet been interchanged, and that the Corporation has not yet set its final seal of approval upon the plans, it is expected that before many further months the Richard Homberg Memorial Infirmary will take form for the care of student health at Technology.

The building, although short in length, will rise to a height of four stories. It will be on an interior court; will join with Building 3 so that the present entrance to the clinic will remain the entrance to the new infirmary. The entire building will be a memorial to Richard Meyer Homberg, '23, who died in 1923 from pneumonia. The gift for construction comes now from his family to the extent of $100,000. To this the Institute will add another $50,000 which will provide completely for the building, exclusive of equipment.

The infirmary will be in no sense a hospital. No operative treatment will be given there beyond the necessary and inevitable first aid. First aid quarters will, however, be greatly enlarged and improved and ample facilities provided for the physical examination of all students. The chief virtues of the infirmary will be the provision of isolation facilities for students requiring observation for whatever cause; provision also of convalescence quarters to relieve students from the excessive hospital expense so often necessary following surgical treatment. A total of about fifteen beds will be provided with possibility of addition in time of epidemic. The entire fourth floor will be a partially enclosed solarium particularly for convalescents. Plans are shown on page 417.

Present decision on the construction of the building rests with a Technology committee of three, of which H. J. Carlson, '92, is chairman; Allan W. Rowe, '01, and George W. Morse, M.D., present Head of the Department of Hygiene, the members. Charles Butler and E. A. Grunsfeld, Jr., '18, are the associated architects.

From a lithograph drawn for The Review by Kenneth Reid, '18

HARRY J. CARLSON '92

He has been chosen as architect for the new Guggenheim Aëronautical Building. For the year 1922–23 he was President of the Alumni Association and on March 9, 1921, was elected a Life Member of the Corporation

Course IV Lengthened

EARLY taking cognizance of a new trend toward a more extensive training period for students of architecture and agreeing to the proposition that the profession of architecture is much in need of men well-equipped culturally as well as technically, the Faculty on March 16, adopted a proposal of the Committee on Undergraduate Courses, that, beginning with the 1927–28 entering class, a five-year course of study instead of one of four be required for a degree of Bachelor in Architecture. A last minute notice of this action was inserted at the end of The Architectural Bulletin as published in the April Review, and initially there was included a comprehensive description of the proposed course which was, at the time of the writing of that particular article, more of a hope than an actuality.

The Faculty directed that the new five year course be designated "Course IV — Architecture" in substitution

for the old or present designation "Course IV, Option 1" and that "Course IV, Option 2" (Architectural Engineering) be henceforth known as "Course IV-A — Architectural Engineering." This change in nomenclature is in recognition of the great divergence between the options, making it improper to consider them divisions of the same course.

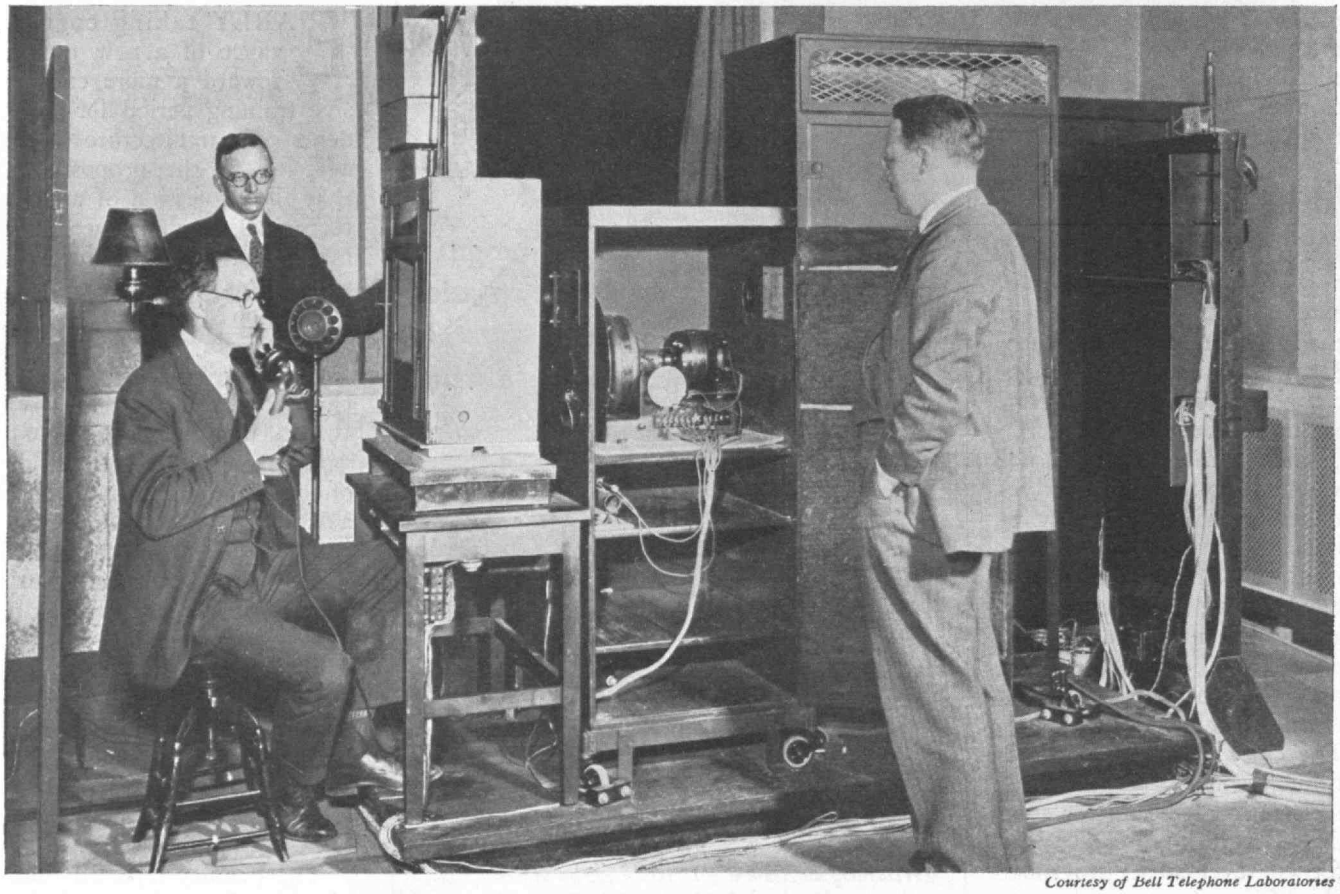
Course III — Option 3

GREAT is the importance of the petroleum industry making it necessary for technical and engineering schools to offer some specialized training to men who expect to work in that field. This necessity is emphasized by the character of petroleum and its occurrence, necessitating unique engineering practice involving Geology, Mining, Chemistry and virtually every branch of engineering. Realizing this situation, the Institute on April 14 established a new option in Course III, Mining Engineering, to be known as Petroleum Production, designed to give men a training in the extraction of petroleum from the earth. This is the third option of Course III and goes into effect next October. To assist in the conduct of the option Horace T. Mann, Sc.D. '25, has been appointed Associate Professor of Petroleum Engineering. He has served on the faculties of the University of Missouri and the Montana School of Mines, and of late has been engaged as a geologist and valuation engineer. The other part of the petroleum industry, petroleum refining, is handled by the Department of Chemical Engineering, and many of its graduates are entering that field.

Fellows

NEXT YEAR two Assistant Professors will be absent from the Institute when twenty-eight year old Manuel S. Vallarta, '21, of the Department of Physics and twenty-nine year old Philip Franklin of the Department of Mathematics leave for Europe to make use of fellowships of $2,500 recently awarded them by the trustees of the John Simon Guggenheim Memorial Foundation. To a credulous public it was announced that Dr. Vallarta will study the connections between Schrodinger's wave mechanics and the Einstein Theory of Relativity in consultation with European authorities, and that Dr. Franklin will travel to Göttingen, Germany, and Zurich, Switzerland, where he will make a study of integral equations, orthogonal functions and their relations to almost periodic functions.

Another of the fellowships went to Samuel V. Chamberlain, '18, Assistant Professor of Architecture, University of Michigan, "to study the technique of etching, in England, and to execute etchings and dry-points directly from nature." Examples of Mr. Chamberlain's work may be seen on the covers of The Review for the past fourteen issues, this one and the forthcoming one for July.



Courtesy of Bell Telephone Laboratories

TELEVISION

Apparatus that transmits pictures, together with sound, strikingly demonstrated, April 7, as recorded on page 410. Standing in the rear is J. Warren Horton, '14, a member of the technical staff that developed the equipment

Out of 600 applicants, fifty-five from twenty-nine different educational institutions were granted fellowships. Of these the University of Chicago is represented by four fellows, the University of Minnesota by three, Goucher College by two, and the California Institute of Technology, the Universities of California, Illinois, Maine and Michigan, and Princeton and Duke Universities and Technology have two each. Last year Norbert Wiener, Assistant Professor in the Department of Mathematics, was a Guggenheim Fellow at Göttingen, and concurrently served as a lecturer on its faculty.

Courtesy of Bell Telephone Laboratories

VOICE AND VISION

Herbert Hoover inaugurating television, which transmits voice and vision simultaneously over telephone circuits. (Photo transmitted to Boston by telephotography.) *See story on page 410*

Open House

THE Institute's annual "Technology At Home," otherwise known as Open House, a custom established six years ago to give the public an opportunity to inspect the buildings and laboratories, comes this year on April 30. All laboratories will be in operation with various popular experiments or exhibits, and the student activities are making special efforts to present their work to the best advantage. In addition to the departmental laboratory demonstrations, special spectacular features have been arranged.

The Department of Mechanical Engineering will have a huge pendulum suspended from the dome in the library to demonstrate certain phenomena of the rotation of the earth. And while the pendulum swings the Department of Military Science will be waging mimic war on the parade ground with a spectacular display of chemical war service equipment. There will be special lectures, moving pictures, liquid oxygen demonstrations and radio exhibits, all intended to stir the lay mind to some realization of the part science and engineering play in life. Last year nearly 15,000 guests thronged the buildings during the evening of Open House Night.

The New York Convention

PLANS for the Convention of the Technology Clubs Associated, to be held in New York City June 10 and 11, are rapidly being formulated. On page 424 such advance information as is now available is set down at length, together with the names of the men who are laboring to make the Convention the most successful and important yet held by that organization. To facilitate the making of reservations and the adequate handling of visitors it is important that those who expect to attend send to Thomas C. Desmond, '09, General Chairman of the Convention, Room 1014, 247 Park Avenue, New York City, ten dollars in checks, bills or specie. This will cover, at reduced rates, registration and admission to all Convention events. Attendance, of course, will be the criterion of success, and it is the belief of those in charge that this problem will take care of itself once the Convention is adequately brought to the attention of the Alumni.

Lenten Lectures

FOR the Institute the Lenten season has been a lecture season; since the latter days of March more than a score and ten special lectures have been delivered before inquiring Technology listeners. An insatiable, adamant individual in search of variegated knowledge, on March 24, could have gone at 3, 3:40, and 4:15 P.M. to lectures intended for freshmen given by the heads of different courses. Thereby bolstered up with a fund of knowledge about the relative merits of certain Institute departments, he could have gone with impunity to the Faculty Club luncheon on March 25 to receive a leavening and antidotal lecture by George E. Vincent, President of the Rockefeller Foundation, wherein the speaker announced he would indulge in "amiable articulation" for twenty minutes, and did. His subject was "Hygiene in Jugo-Slavia" or perhaps it was the reverse. At any rate the speaker would have made the insatiate lecturer-goer acutely sensible of his risible rib.

After this Faculty Club luncheon he would have then been privy to a three-day rest, for the next lecture or series of lectures came not until March 29 when the course lectures for freshmen were continued in innings, each lasting not much over a half hour. Unfortunately he could have attended but three of these since there were two at 3 P.M. and two at 3:40 P.M. Following these the Fates, with a modicum of mercy, permitted another interlude, this time lasting one day, giving the lecture-goer a chance to start assorting, filing, and cross-indexing the diversified material he was garnering. This was essential for the immediate

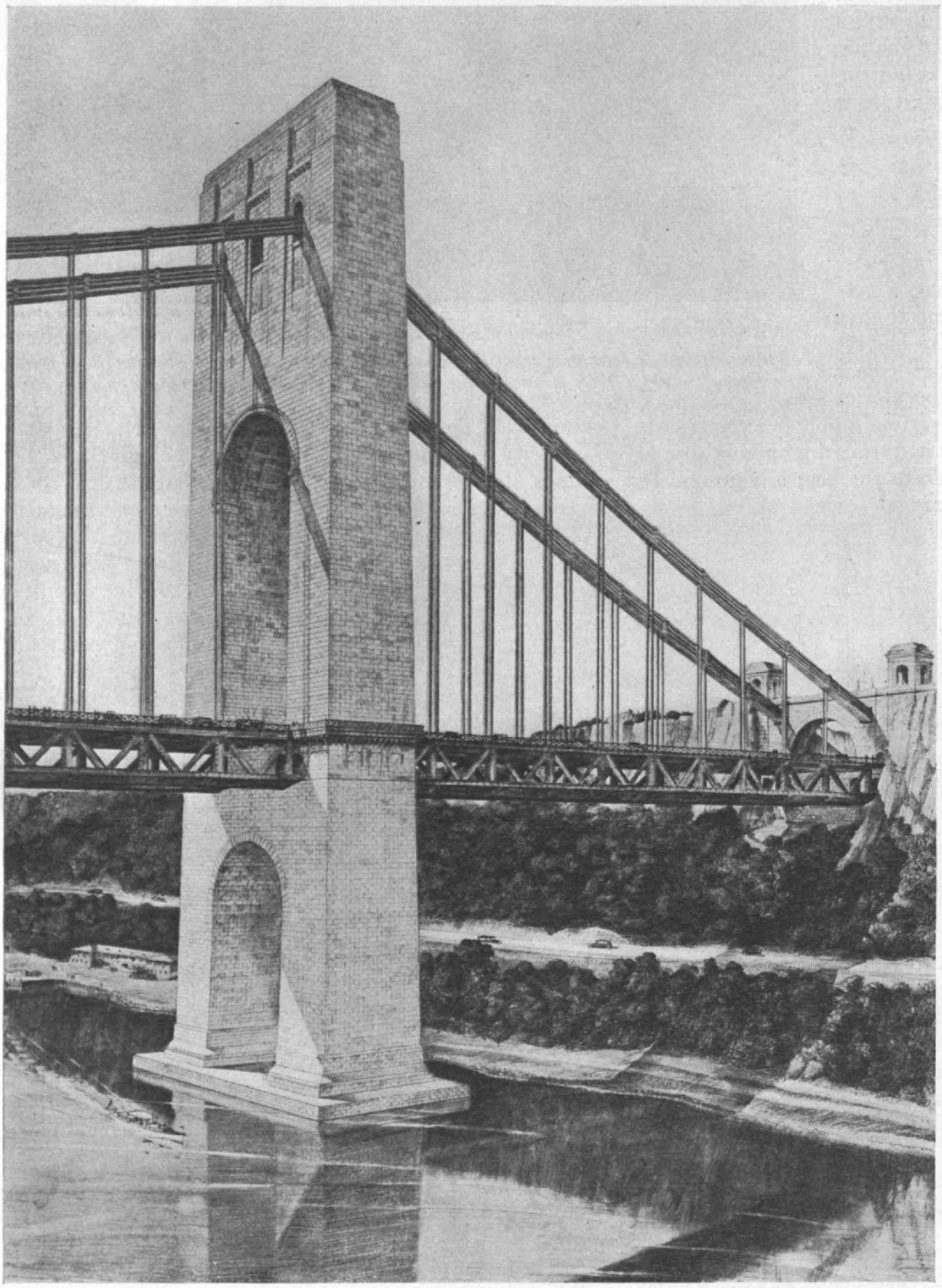
future brought a new series, more exacting than the freshman talks; four lectures, one each day, March 31, April 1, 5, and 8, delivered by Robert S. Ball, '91, of the Faculty of Engineering of Cambridge University, England. His subjects in order were "The Study of Principles," "Engineering Education in Great Britain," "Science as the Foundation of Engineering," and "The College System of Education, Explaining Facilities Arranged for Exceptional Students."

But with Mercurial abandon this report has galloped too deeply into the future in attempting to encompass the insatiate Mr. Lecture-Goer's activity in absorbing the lectures of Mr. Ball; two days back, April 6, another Faculty Club luncheon transpired at which Sir Herbert Ames, the first Financial Director of the League of Nations Secretariat, talked informingly of the problems encountered when paying the bills and collecting the debts of the League of Nations. Manifold were his troubles; he had to deal with motley folk and varied monies. One day back there were five more of the freshmen course lectures that could have been attended.

On April 7, overlapping again in this chronological narrative, four lectures ended the freshmen course talks and a new series started — that by George H. de Thierry, Professor of Hydraulic Engineering at the technical university of Charlottenburg, Berlin. Under the auspices of the Department of Civil Engineering he presented his series of lectures on Hydraulic Engineering. There were five, April 7, 8, 11, 12, and 14.

It was April 8 that the high water mark was reached for the lecture-goer. Besides the two already mentioned, the de Thierry lecture which came at 11 A.M. and the lecture by Mr. Ball which came at 3 P.M., there was the important Sedgwick Memorial Lecture, at 5 P.M., delivered by Dr. Haven Emerson of Columbia University, and described at more length on the opposite page.

By April 14, the man, loaded to the gunwales with intellectual freight, who attended all the lectures undoubtedly experienced much satisfaction; indeed he could have, with Messrs. Gilbert and Sullivan's Pirates of Penzance sung objectively the song of the Major General, and he could have paid tribute to the lecture opportunities offered by the Institute.



DWARFING ALL

A rendering by John T. Cronin, '17, of one of the towers of the mammoth Hudson River Bridge designed by Cass Gilbert, '80. In high command will be Allston Dana, '08 engineer of Design for the Port of New York Authority