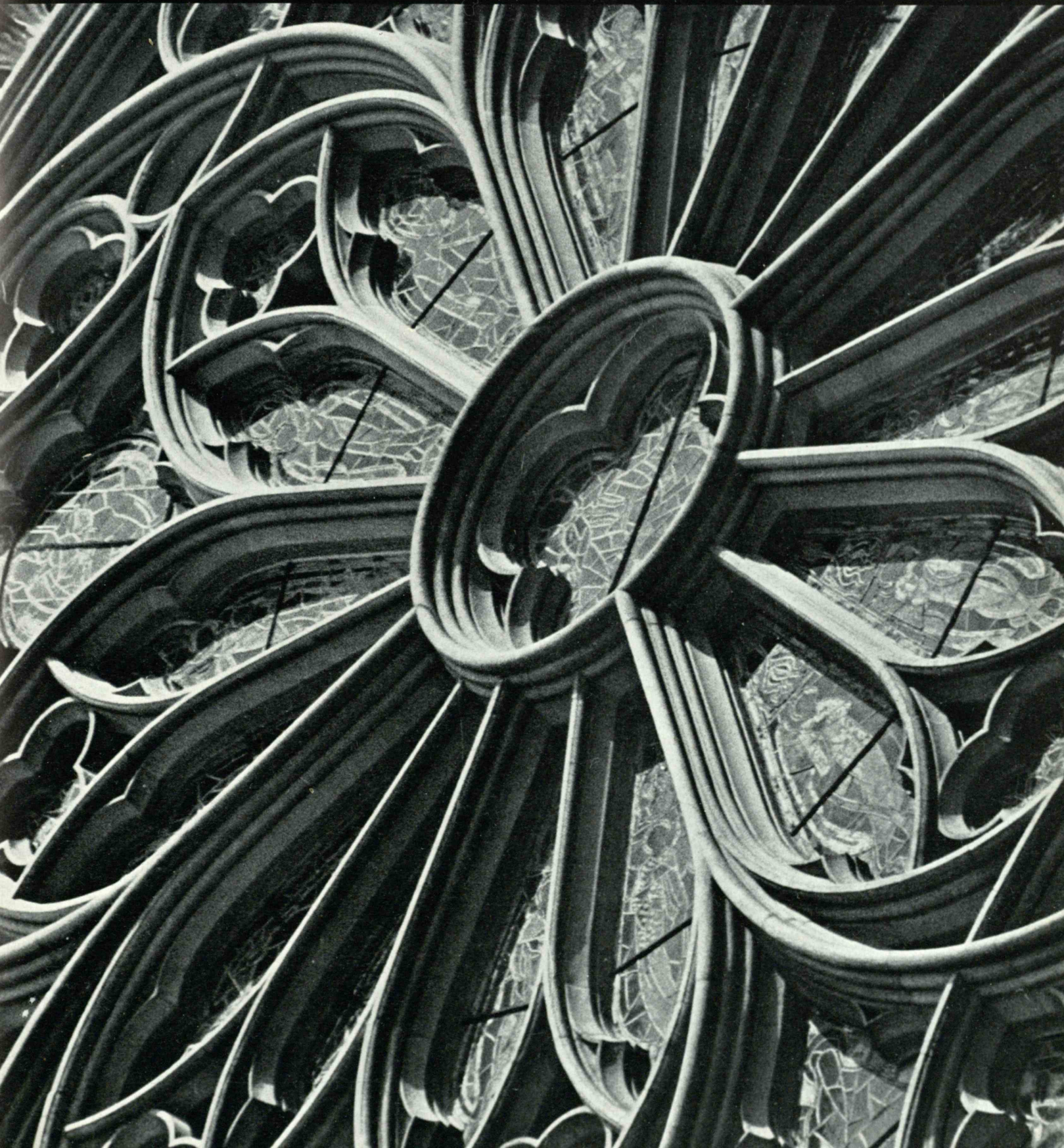


June 1939

TECHNOLOGY REVIEW

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THE TABULAR VIEW

RETURNING to America after 20 years in Japan, where he went with Frank Lloyd Wright in 1919, ANTONIN RAYMOND brought back extraordinary experience from which an extraordinary mind has distilled philosophy and theory illuminating to those who see in Modern architecture invitation to a better future. During his sojourn in the Orient, Mr. Raymond became the chief modern builder of Japan, and became also unassuming pupil of carpenters and workmen possessed of skills and intimate knowledge of materials derived from a tradition differing far from that of the Occident whence the pupil sprang. Mr. Raymond was born in Bohemia, served the United States as an assistant military attaché in Switzerland, was an engineer-architect with the late Cass Gilbert, '80. Out of this fusion of inheritances comes his stimulating philosophical justification of Modern architecture (page 349). ❑ SYDNEY E. INGRAHAM for years has been a student of bird songs, as well as an assiduous devotee of music, from which combination of interests she has become equipped with knowledge well calculated to make the most of applications of scientific technique to the study of an artless art (page 352). She is at present making a transcription of the voice of the poet Walter de la Mare. She is the wife of Professor Olin Ingraham of Technology's Department of Economics and Social Science. ❑ Speculative analogies between scientific laws and hypothetical laws in other fields have long been a recreation for ingenious minds—in language, in literature, in sociology, in economics. The technology of trade sketched by WILLIAM A. RHODES, '12 (page 355), thus swells an already large list; it is presented as a provocative essay to which Review readers may be tempted to make additions—or to take exceptions. An engineer with the Bell Telephone Company, Mr. Rhodes, for some years past, has made his avocation consideration of ways to clear trouble in business, carrying on voluminous correspondence with industrial observers, and seeking direct applications of objective method to a new field. ❑ For over 20 years a student of fire fighting not only in the United States but also in England and on the Continent, DONALD HOLBROOK presents in this issue (page 357) an aspect of the fire problem which is, of course, latent in all our preoccupation with fire but which is rarely given explicit statement. Mr. Holbrook's study of fire is another of the unusual avocations in which Review readers are interested. Professionally a trustee and financial counsel, he has written widely on the subject of fire prevention. He is vice-chairman of the fire-prevention committee of the Boston Chamber of Commerce and civilian aide to the chief of his own city, Newton, Mass.

THE Cover Club this month gains a welcome new member, RICHARD W. ST. CLAIR, '36, whose eye discerned and camera fixed in striking perspective the rose window of the Cathedral of St. John the Divine in New York City.

No. 17

Just for Fun! A CHALLENGE TO YOUR INGENUITY

TRY this on your friends. You say, "Write down any number B. Above B, write down another number A, made up of all the digits in B and any additional digit except 0, arranged in any order. Subtract B from A, and tell me the final answer" [C].

Example:
$$\begin{array}{r} 65,835 \text{ A} \\ 5,653 \text{ B} \\ \hline 60,182 \text{ C} \end{array}$$

You can now find the unknown added digit, as follows: add together the digits of C, and if this result contains two or more digits, add these together in turn, and so on, till only one digit remains. This will be the extra digit that was added in forming A. WHY?

[In the example: $6 + 0 + 1 + 8 + 2 = 17$; $1 + 7 = 8$; and 8 was the added digit.]

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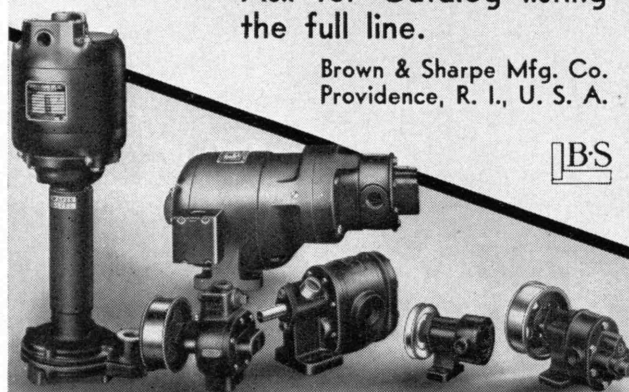
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MAIL RETURNS

Support for Professor Bridgman

FROM HARRISON W. SMITH, '97:

In February, Professor P. W. Bridgman of Harvard announced in *Science* his decision to close his laboratory to citizens of totalitarian states; and in March, Professor Douglas Johnson of Columbia, in the same journal, dissented from Professor Bridgman's position, raising the following questions: "Can we then with propriety open or close our laboratories and our lecture halls for political purposes, even when those purposes to us seem meritorious? Is there not, on the contrary, a fundamental impropriety in mixing politics with science, whether this be done in a totalitarian or a democratic state?" Professor Johnson ends his article with the "plea that scientists fight political battles with political weapons, and that they do all within their power to keep our academic halls and research laboratories sheltered from political storms, safe havens of intellectual sanity, calm judgment and free search for truth in a world gone mad."

From press dispatches at the time, it appeared that Professor Bridgman advanced two reasons for his action: first, to deprive totalitarian states of scientific information which they might misuse and, second, to express his abhorrence of the practices of totalitarian states.

Has not Professor Johnson entirely ignored the first reason for Professor Bridgman's action? Surely a distinction should be drawn between those studies which can only improve the mind and heart of man, and those studies whose products are capable of blowing him to bits. There are many beneficial things to teach a gangster, but highly specialized training in ways of aggression is not one of them.

As regards a great many of the subjects of study and research that are offered in our institutions of learning, Professor Johnson's plea is an admirable expression of the high ideal of service to our fellow men. It would, for example, be commendable if Hitler and his comrades could be induced to come to America in order to pursue, in the environment of academic freedom which exists so abundantly in our country, a few elementary courses in the origin of species and of the races of men, in primitive culture and comparative religion, in ethics and morals. For Fascists great benefit would derive from courses in the history of free institutions from the days of ancient Greece and Rome to the present time. Every effort should be made to attract Japanese students for the purpose of giving them an intensive course in the history, theory, and practice of wit and humor; for it is one of the tragedies of our times that a people whose official utterances so often lead to smiles should be apparently so unable to appreciate the humor they themselves create. Our schools and colleges could do a great deal to improve the intellectual, moral, and spiritual outlook of many totalitarian citizens and subjects; but when we leave consideration of instruction in the humanities and come to various fields of science, the question assumes an entirely different aspect.

A distinguished chemist speaking last summer at the meeting of the American Association for the Advancement of Science held in Ottawa, said that chemistry can, and possibly will, destroy civilization. Indeed chemistry, so efficiently employed by the Japanese, has already well-nigh destroyed the world's oldest existing civilization . . . Yet Technology is now giving instruction in this most dangerous, although at the same time most beneficial, branch of science to students from totalitarian and aggressor nations.

It goes without saying that there is implied no adverse criticism of these young men who are receiving the instruction. They possess, no doubt, many fine traits of character; beyond all doubt many of them are endowed — as Japanese are, for instance — with a quality of patriotism which in our country is all too conspicuous by its absence . . . It is inconceivable that any totalitarian nation — say, Japan — would sell vitally essential war materials to a nation which had machine-gunned and sunk a Japanese gunboat and which had made clear its determined enmity to Japan. Yet that is the kind of thing that industrialists, and notably American industrialists, have been doing. Can anyone doubt that, when Japan is strong enough, her fishermen will resume the extermination of salmon off the coast of Alaska unless the United States is prepared to stop them?

The patriotism of those students at Technology who come from totalitarian and aggressor nations — and no people excel the Japanese in devoted and compelling patriotism — makes it inevitable that they will use to the utmost of their ability the (Concluded on page 382)



L A T E X...

The Miracle Worker of Industry

MAY WORK MIRACLES FOR YOU

FEW PERSONS realize how many of the comforts, luxuries, and safeguards of modern living owe their existence to LOTOL (Processed Latex) and its creative development. Yet latex and LOTOL are associated with some of the most outstanding records of progress in the history of American industry. One spectacular achievement after another... from yarns to tires, from simple adhesives to artificial leather... has rewarded manufacturers who, in LOTOL, found the way to new ideas, new ways of doing things.

Give LOTOL a task for which it is suited and you'll find an invaluable aid. Most of you know that processed latex made possible "Lastex" (The Miracle Yarn that Makes Things Fit) and *Foam Sponge cushions and mattresses*. But few know that LOTOL is being successfully used for sizing carpets and rugs as a non-skid surface and to reinforce constructions, lining barrels, impregnating papers and textiles... in cements and adhe-

sives, in shoes, artificial leathers, self adhering gauze, gloves, footwear, toys and novelties, book binding, insulated wires, battery plates, upholstery fabrics, flooring, expansion and contraction seams for concrete structures, in chewing gum bases, leather finishes, temporary protective coatings, golf balls, curled hair cushions, bathing suits and caps, tree surgery, and rubber sundries.

The surface hasn't been scratched yet. Industry hasn't explored the possibilities of latex and LOTOL... and we don't know them all ourselves. But surely it is evident that latex products are becoming more and more essential to modern living. This is a restless, impatient, ever-changing world, forever clamoring for the things which will make it better. And no one knows it better than the American manufacturer, who would do well to look ahead to the possibilities of using LOTOL to improve processes and products. Naugatuck Chemical engineers will be very happy to cooperate.

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(processed Latex)

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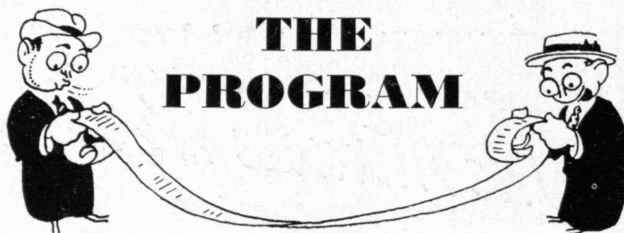
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ALUMNI DAY — JUNE 5

THE PROGRAM



June 2-4 and later

CLASS REUNIONS . . . from '89 to '34 and all the five-year classes between . . . and a few extras . . . from Connecticut to Marblehead the hills and dales will echo to the sounds of merrymaking.

June 4

DR. COMPTON'S SUPPER . . . (for Honorary Secretaries, Officers of Alumni Clubs) 6:30 P.M., Engineers Club, 2 Commonwealth Avenue, Boston . . . informal dress.

COURSE XV REUNION . . . a Convocation of Course XV Graduates on the occasion of the Department's 25th anniversary . . . to discuss the future of its service to students. Starting with commemorative services at Christ Church, Cambridge, at 11:00 A.M., through lunch at the Hotel Continental, group conferences in the afternoon, the Convocation Dinner in the evening at Walker, and ending with a breakfast at Walker on Monday.

June 5

ALUMNI DAY . . . Starting at 8:30 to 10:00 A.M., with **REGISTRATION** in the new Rogers Building lobby. . . Here Course XV Convocationers and Refugees from Reunions will mingle with just ordinary alumni, their wives and families. Those arriving early will have an opportunity to look over the **EXHIBITS** which will be on display throughout the day. . . Army, Navy, and Air Forces have all contributed to this visual demonstration of the major part that engineering and science plays in today's National Defense program. And then at

10:00 A.M., real start of the day's varied activities, the important **CONFERENCE** on "The Technology of National Defense." No more timely subject could have been chosen . . . no more authoritative panel could have been secured than

DR. GERARD SWOPE, '95, *Presiding Officer*
President, General Electric Company

HONORABLE CHARLES EDISON, '13
The Assistant Secretary of the Navy
"The Navy and Industry"

HONORABLE LOUIS A. JOHNSON
The Assistant Secretary of War
"Some Fundamentals of National Defense"



At the close of the Conference at

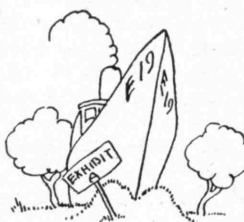
1:00 P.M., come the **LUNCHEON** in Du Pont Court for all alumni and their guests . . . if the meteorologists are noncoöperative the location will be changed to the fourth floor of the new Rogers Building — the exhibition and drafting rooms . . . an excellent opportunity to inspect this new building, by the way. Luncheon over, at

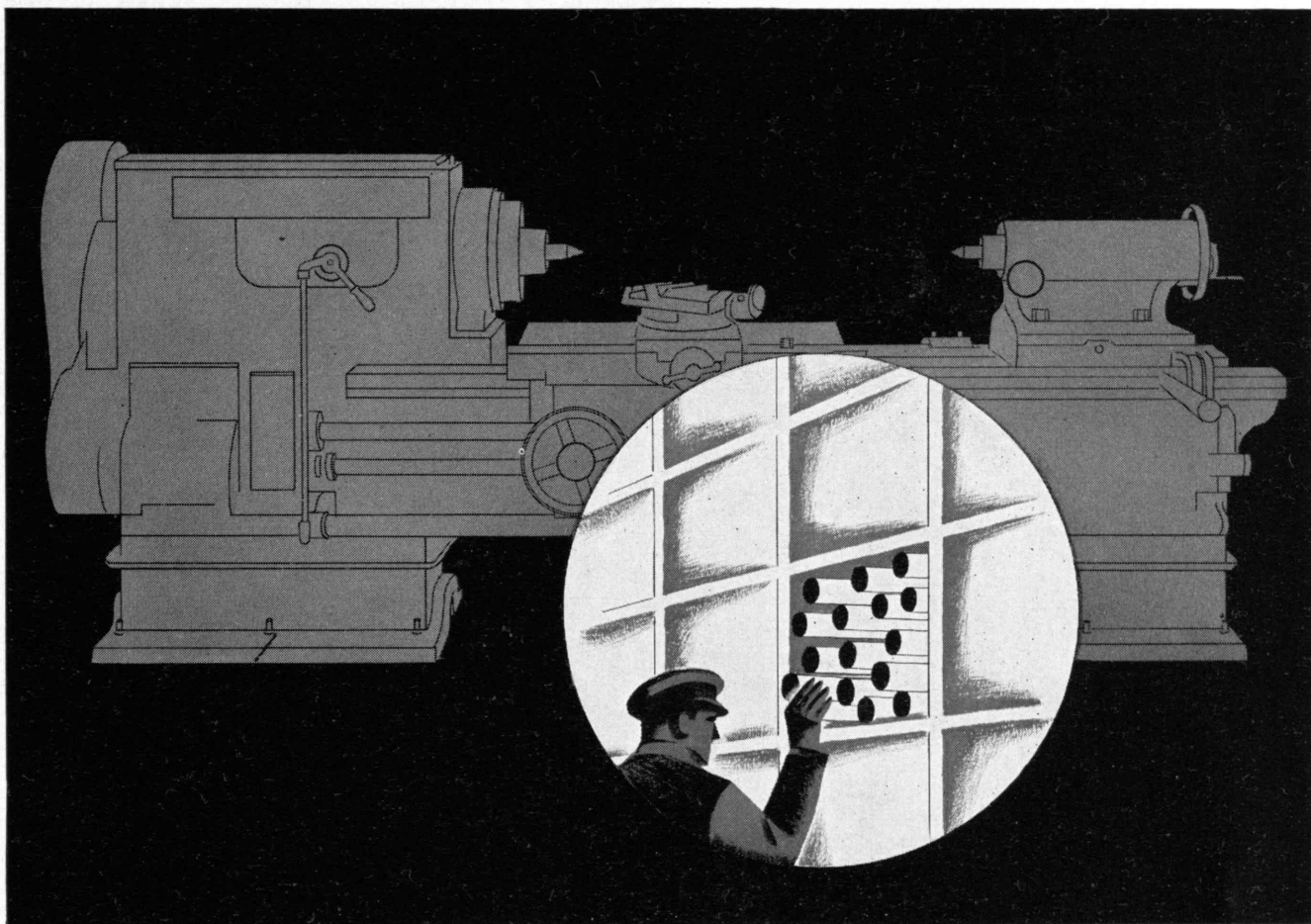
2:00 P.M., come the **CLASS DAY EXERCISES** in Lowell Court . . . a joint program of the Senior Class, the Class of '89, and the Class of '14. Speakers include President Karl T. Compton; H. B. Richmond, '14, President of the Alumni Association; Franklin W. Hobbs, '89, for the 50-year class; Charles P. Fiske, '14, for the 25-year class. Immediately after the exercises at

4:15 P.M., the **DEDICATION OF THE BRIGGS FIELD HOUSE** will be held . . . erected from the funds contributed by alumni for this purpose . . . a chance to see what's been done with them. . . . And then at

4:45 P.M., tea will be served at the official **OPENING OF THE DARD HUNTER PAPER MUSEUM** . . . a new acquisition including the most complete collection of handmade papers in the world . . . third floor, Building 7. With the Dedication, formality comes to an end . . . from this time on fun and gaiety reign supreme . . . "this time" means officially

6:30 P.M., the start of the **ALUMNI DINNER** and "on" means just that — on! The place is again the Hotel Statler in Boston. Continuing the custom begun last year the Stein-on-the-Table will again be an important feature . . . another distinctive souvenir of a very large evening. Only scheduled talk of the evening is President Compton's. Main event of the entertainment will be the epic news sequence "Technology Prepares for Defense." What startling steps are being taken? What makes Charlie Locke such an important factor? Have you heard the "Faculty March," a spine-tingling bit of martial mélange? These are but vague indications of what this Masterpiece of the Magic Lantern holds in store. Musical interludes will include the performance of the Hammond Novacord . . . an instrument that does almost everything but cook . . . various vocal and instrumental offerings.





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That is why Goodyear dares make this bold statement: no matter *what any other truck or bus tire has done for you, the YKL will do it better!* The reason is that the YKL's Rayotwist carcass is far superior to ordinary constructions in strength and in its prolonged resistance to heat — the cause of 82% of all truck tire failures. America's truck and bus operators stand to save millions of dollars a year with this astonishing tire. By such services to its fellow men in many fields does Goodyear justify the greatest name in rubber.



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