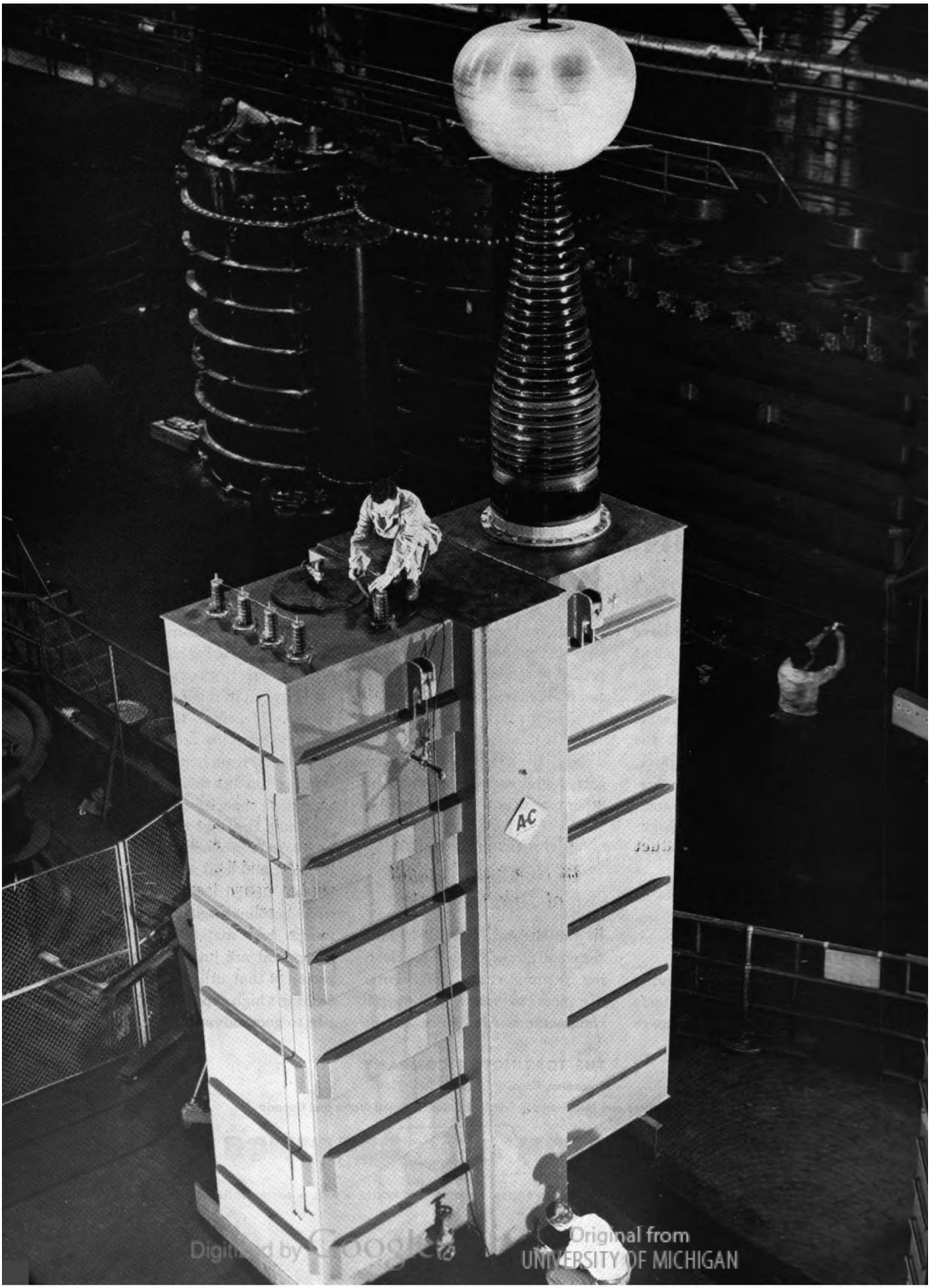

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PLANNING THE PEACETIME ROLE OF THE ATOM

Edited by CHARLES STICKELS, '55 (Chem-Met)

Engineering dreams of utilizing the atom for industrial tasks are a step closer to reality, for an international congress meets this June at Ann Arbor, Michigan, to discuss peacetime uses of atomic energy.

Among the varied peacetime uses of nuclear products, apart from power generation, are sterilization of foods and drugs and the use of isotopes as tracers in medical and technological processes. Industry is using irradiated substances to gauge thicknesses of materials by measuring the amount of radiation absorbed. Radioactive substances are being used to activate switches for precise controls. Radiocarbon dating is the name given to science's new method for measuring the age of organic materials. The process depends on measuring the amount of radioactive Carbon 14 emitted from dead organic bodies, the half life of Carbon 14 being 5568 years. Recently a strain of oats was produced, the result of a mutation brought about by radioactivity. These oats show remarkable resistance to rust.

These are some of the known uses of nuclear energy and it is expected that they will be expanded and others come to light as a result of the free interchange of ideas at this conference.

The congress is sponsored by the American Society of Chemical Engineers and the University of Michigan. Plans for the meeting have been underway for more than a year by the Nuclear Energy Committee of the American Institute of Chemical Engineers. This committee is composed of some 15 members representing industry, the Atomic Energy Commission, government laboratories, and universities. These people have solicited papers to provide the latest engineering information on nuclear power reactors, research reactors, materials of construction, preparation of nuclear fuels, processing in irradiated materials, and the applications of radioactive products. Of the more than 80 papers to be presented a good many contained classified material at the time they were written and are now in the process of declassification through the cooperation of Dr. Beckerly, Chief of the Declassification Branch of the Atomic Energy Commission. Early next month, the committee will assemble and finalize the program for next June.

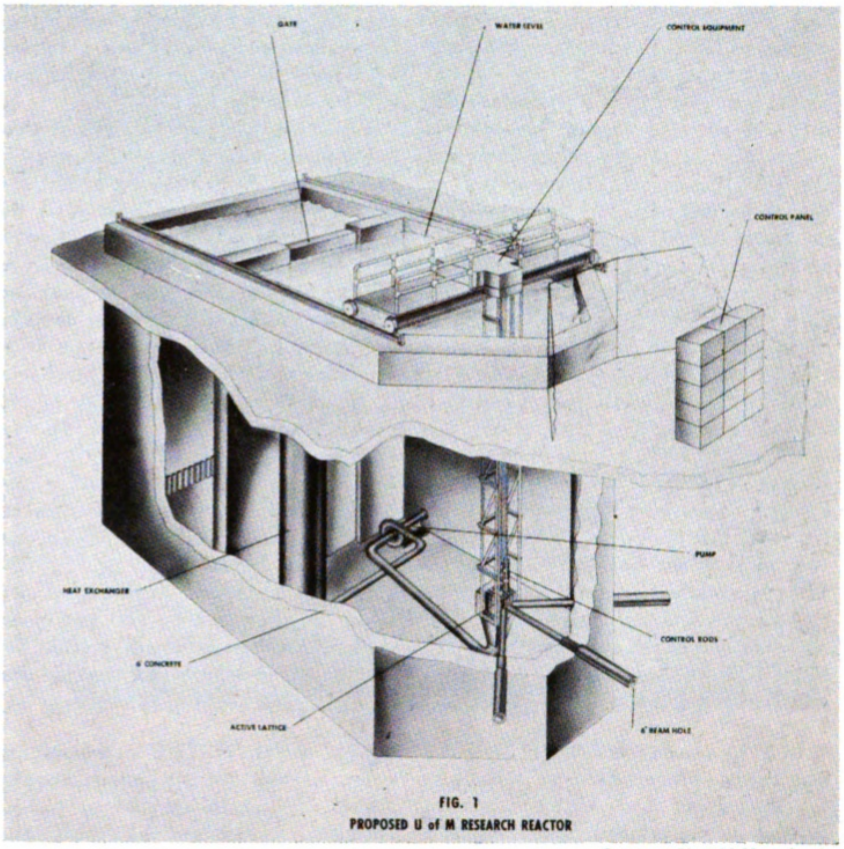

FIG. 1
PROPOSED U of M RESEARCH REACTOR

Courtesy: U of M News Service

Cutaway view of the nuclear reactor to be built by the University of Michigan. Reactor will be housed in specially built structure three stories high and fifty feet square. International atomic congress that meets this summer will aid scientists here by exchange of ideas.

Foreign countries have been invited to participate by presenting papers at the meeting and attending the session. These invitations were issued through Dr. Alberto F. Thompson, Chief of the Technical Information Service of the Atomic Energy Commission. He also is making arrangements through the Special Assistant to the Secretary of State for Atomic Energy to have all persons from foreign countries who desire to attend the meeting cleared so that there will be no embarrassments on arrival in the Unite States. It is contemplated that a dozen papers will be given by representatives from six foreign countries. Some time ago over 30 people had been cleared to attend the sessions from Great Britain, Italy, the Netherlands, France, Norway, India, Canada, Spain, Belgium and Sweden. Visitors from abroad tell us of the interest they are hearing from foreign engineers and scientists and communications are being received to make inquiry concerning the meeting.

A full-day session will be held in Hill Auditorium to which the public will be

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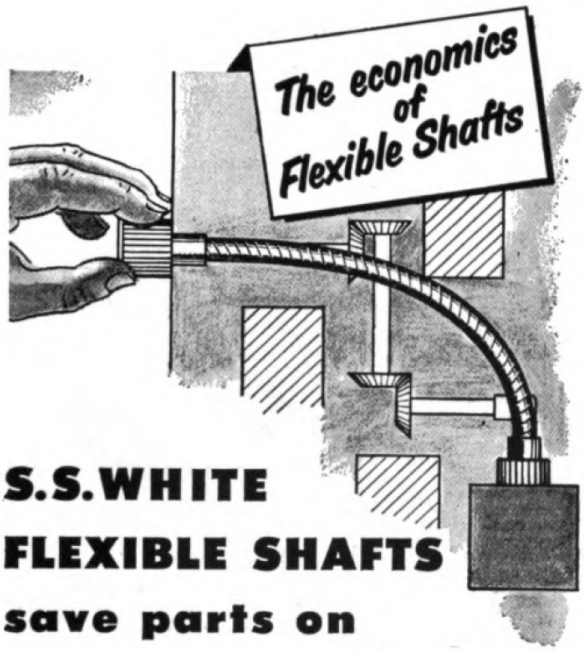

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PLANNING THE PEACETIME ROLE OF THE ATOM

(Continued from page 11)

invited. Professor Elton Trueblood will speak on "The Impact of Atomic Energy on Religion." Dean E. Blythe Stason of the Law School will speak on "The Impact of Atomic Energy on Legal Problems" and Dr. Shields Warren will speak on "The Impact of Atomic Energy on Health." Representative Sterling Cole, Chairman of the Joint Committee on Atomic Energy of the Congress, will be a luncheon speaker that day. Drs. Sawyer and Gomberg are considering an invitation to participants in the Phoenix Project for this day since it will bring forth a spectrum of the impacts of atomic energy on our society.

Last December the Nuclear Energy Committee of the AIChE reorganized as a Nuclear Engineering Division with a constitution permitting other than chemical engineers to join the new division. Professor Donald L. Katz, Chairman of the Engineering College's Chem. Engineering Department, is chairman of this new Division and Professor J. J. Martin, also of the Chem. Engineering Department, is Secretary-treasurer. Dean L. M. K. Boelter of the University of California is Vice-Chairman of the Division. Members of the Executive Committee include Dr. Alberto F. Thompson of the Atomic Energy Commissian at Washington; Mr. Clark Center of the Carbide and Carbon Chemicals Corporation at Oak Ridge; and Dr. Walter H. inn, Director of the Argonne National Laboratory. The new division already has over 250 members. It has a real opportunity to pioneer in the organization of technical meetings and dissemination of information on atomic energy.

Some months ago, consideration was given to having an Atomic Exposition at the University in connection with the Nuclear Engineering Congress. Permission was obtained from the Atomic Energy Commission for such an exhibition. It is hoped that arrangements can be made for a goodly number of exhibitors to present educational exhibits on products and services in the field of atomic energy.

Dr. R. R. White of the Chemical Engineering Department is Chairman of the Committee on Local Arrangements coordinating the efforts of the University of Michigan, the American Institute of Chemical Engineers national office, and the Detroit Local Section of the AIChE. Such items as registration, housing, ladies program, meeting facilities, etc., are being handled by the local committee. Programs will be printed by the American Institute of Chemical Engineers and distributed through their members as well as others indicating an interest. Invitations will be issued to members of other technical societies interested in atomic energy.

Since the University of Michigan is in the process of building a nuclear reactor with the aid of a $1,000,000 grant from the Ford Motor Company Fund, these discussions will be of assistance in the design and operation of this reactor, one of the few in the country.

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