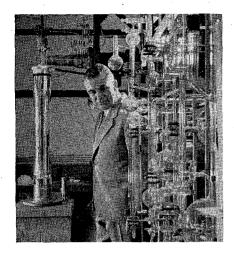
ENGINEERING AND SCIENCE

IN THIS ISSUE



ON THE COVER—John R. Pellam, Caltech professor of physics, and the spectacular glass structure he uses to condense helium 3 for his low-temperature research. Helium is forced by mercury through the glass bulbs to the silver dewar at the left. By pressure, and a temperature of 1.° K., the helium is condensed into about 1 cc. of fluid. Only one small drop of this may be the actual rare isotope, helium 3, which is now being used for studies of absolute zero.

For more about low-temperature physics, see page 18.

H. ROWAN GAITHER, whose Alumni Seminar speech, "Science and the National Welfare," appears on page 9 of this issue, is chairman of the board of the Ford Foundation, and the Rand Corporation. He is also chairman of the science resources panel of President Eisenhower's Science Advisory Committee, whose still-secret "Gaither Report" stirred up considerable excitement in the press recently.

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Cover	Richard Hartt
pps. 13, 14, 15	Harvey
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MAY, 1958 **VOLUME XXI** NUMBER 8 PUBLISHED AT THE CALIFORNIA INSTITUTE OF TECHNOLOGY CONTENTS In This Issue 3 **Books** 6 Science and the National Welfare Our survival depends on our ability to act decisively—and now. by H. Rowan Gaither The Month at Caltech 13 Alumni Seminar Day-1958 16 The Coldest Spot in the World 18 It's in a vacuum tube in the low-temperature physics laboratory. by Jane Werner Watson **Personals** 28 STAFF Publisher _____ Richard C. Armstrong '28 Editor and Business Manager Edward Hutchings, Jr. Student News Brad Efron '60 Student Photographers Dennis L. Paul '59 William R. Schmus '60 Published monthly, October through June, at the California Institute of Technology, 1201 East California St., Pasadena, Calif., for the undergraduates, graduate students and alumni of the Institute. Annual subscription \$3.50 domestic, \$4.50 foreign, single copies 50 cents. Entered as second class matter at the Post Office at Pasadena, California, on September 6, 1939, under act of March 3, 1879. All Publisher's Rights Reserved. Reproduction of material

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