GENERAL SCIENCE

Carnegie at War

Annual report shows that war work absorbs major part of research staff and facilities of the Carnegie Institution of Washington.

➤ WAR WORK now absorbs the major part of the research staff and laboratory facilities of the Carnegie Institution of Washington, it is disclosed in the presidential report of Dr. Vannevar Bush.

Dr. Bush has taken on wartime duties as director of the U. S. Office of Scientific Research and Development and chairman of a joint committee on new weapons and equipment in addition to his permanent position as president of the Institution. His example has been followed by many members of the research staff, 34 of whom have taken leave of absence to devote full time to wartime tasks in the government, while 145 others who remain on the Institution payroll are devoting all of their time to the furtherance of the 23 research projects covered by 48 contracts with the government. In addition, these war tasks have necessitated the hiring of about 150 new employes.

All the physical facilities of the Institution have been placed at the disposal of the government, including practically all of the space in the administration buildings in downtown Washington. The executive work of the Institution itself is now carried on in a few offices in part of the old building.

This concentration on war effort does not mean, however, that the many peacetime research programs have been altogether discontinued. Some of the work carried on by the Institution requires uninterrupted series of daily observations, on such things as variations in terrestial magnetism, and these must not be stopped because no subsequent effort could ever fill in the gaps. Other projects are so near completion, and have already involved so heavy an investment of time and money, that it seems advisable to carry them through. One group of projects, the excavation and restoration of remains of ancient Mayan and Mexican civilizations, are being continued with direct government approval because of their value in the strengthening of inter-American cultural relations.

While the great majority of the Carnegie Institution's war-connected researches are necessarily secret and confidential, a few examples, out of many scores discussed in the report, include:

Efforts to develop varieties of hemp for the new fiber-production program that will yield little or no marihuana to would-be drug bootleggers. An apparent correlation between double or triple chromosome numbers and high marihuana concentration has been found.

Improvement of the Russian rubber-yielding dandelion, kok-saghyz, by breeding methods, especially by treatment with colchicine.

Discovery that there is more than one kind of chlorophyll in plants, and hence more than one kind of photosynthesis, the basal food- and fiber-forming process. The new food-making pigments have been found in certain of the lower water-plants knowns as algae, which are the ultimate food of fish and which may have had something to do with the formation of the world's oil pools.

Discovery that children in such diverse racial and cultural groups as the Dutch and Navajo show "a significant trend toward increase in weight and height among the children of today as compared with children of the same age group ten years ago."

Finding of four more of those rarest of anatomical specimens, human embryos in their first few days of existence. None of these was more than a sixteenth of an inch in diameter.

Observation of the still-scattering fragments of an exploded star that was first observed as a nova by the pioneer astronomer Kepler in 1604.

Confirmation of the rotation of those vast island universes known as spiral nebulae. The arms of these great aggregations of stars trail as they rotate.

Science News Letter, December 26, 1942

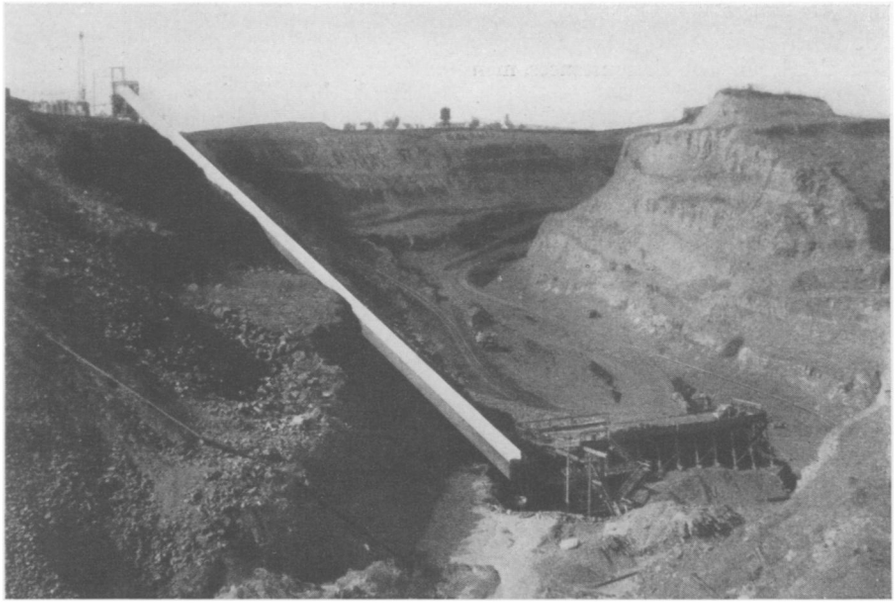
CHEMISTRY

Formation of Crystals Makes Holiday Fantasy

See Front Cover

➤ THE DELICATE fairy scene on the front cover of this week's SCIENCE NEWS LETTER is not from Jack Frost's garden. It is made from an unexposed photographic film on which crystals of photographic hypo have formed. Both experiment and resulting picture are provided by the Science Service staff photographer, Fremont Davis.

Science News Letter, December 26, 1942



CARRYING ORE—The nation's first steel-carcass conveyor belt, developed by the Goodyear Tire and Rubber Co., is used to speed iron ore up the 1,100 foot slope from the open pit mines of the Oliver Iron Mining Company, near Hibbing, Minn.