

the moment it presents the stigmata of a somewhat retarded adolescence. Good dental research is now being done, but not enough to crack the major problems of disease that constitute its field. These problems are complex, in that probably no single basic science will provide the answer to any of them, and peculiar, in that the development, structure, chemistry and pathology of the dental tissues are distinctive. The special training of the dentist should help to solve them. Improving predental and dental education is now producing students able and eager to work along these lines, but opportunities for them to do so are far too limited. Research activity in dental schools remains at a low level, first because dental schools usually lack research-conscious basic science departments, which are shared with medical schools and there oriented away from dentistry, secondly because clinical

dental faculties and many teachers of applied dental sciences are undeveloped or poorly developed as investigators. Since medical schools, with their own well-developed research programs, largely control the basic science departments of dental schools, the medical schools ought to take their responsibility toward dentistry more seriously. By giving their courses for dental students more of a dental orientation the instructors in charge may be stimulated to explore the dental field. The dental student may then in turn find greater opportunity to help. The cumulative effect of awakening dental interest and activity in medical schools may finally open the field for further study and research by dental graduates, and thus provide both the material and the impetus for the changes in dental faculties which are most necessary for the maturation of dental research.

## SCIENTIFIC EVENTS

### THE NEW TELESCOPE OF THE OAK RIDGE STATION OF THE HARVARD ASTRONOMICAL OBSERVATORY

A NEW telescope was the center of considerable attention on September 14, when delegates of the American Astronomical Association at the sixty-fourth meeting at Wellesley College, paid a visit of inspection to the Oak Ridge Station of the Harvard Astronomical Observatory.

The telescope, shortly to be in operation, will be named the Jewett Memorial Telescope for James R. Jewett, professor of Arabic, emeritus, and his late wife, Margaret Weyerhaeuser Jewett. A substantial gift from Professor Jewett has made possible the construction of the instrument at this time.

A unique feature of this new Jewett Reflector telescope is to be found in the manner in which it is housed; the entire building revolving on a special concrete base. Usually only a top of a turret or dome rotates on tracks supported by a non-rotating building. The Jewett Reflector rotating building is twelve-sided and is insulated with homosote. Construction was under the direct supervision of Dr. George Z. Dimitroff, superintendent of the Oak Ridge Station.

The optical parts of the telescope have been completed. They consist of a 33-inch spherical mirror, and correcting plate of 24 inches diameter. This important type of telescope was invented about ten years ago by Bernard Schmidt, of Hamburg, and to date the Jewett telescope is the largest to be put into operation. Construction of larger telescopes of this type was recently started for the Boyden Station of Harvard Observatory at Bloemfontein, South Africa, and at the Palomar Observatory of the California Institute of Technology.

This new type reflector combines the advantages of the reflecting telescope and of the large-field photographic refractor. It both refracts and reflects. Ordinary reflecting telescopes cover satisfactorily only a fraction of one square degree of the sky at a time, but the new Jewett Reflector can cover from ten to a hundred square degrees, depending on the properties chosen for optical parts and mechanical parts. It is particularly effective for surveys of the distribution of galaxies and stars, variations of stars and other problems where a large coverage and high speed are essential.

The mounting for the telescope is of the two-pier type, but the special nature of the Schmidt-type reflector has made it necessary to include several unusual features. Construction is being superintended by Herbert E. Hanson of the observatory staff. Except for the polar axis and counterweights, the mounting is of Dowmetal—probably the first telescope mounting ever made of this specially light and strong magnesium alloy. The Dow Chemical Company, of Midland, Mich., cooperated in providing the difficult castings necessary for both the telescope tube and mounting.

The new Jewett Reflector is considered one of the three or four most important telescopes of the twenty-five in regular use at the Harvard Observatory, and is in some ways, because of its unusual adaptability, the most important. It will greatly extend the survey of external galaxies in the northern hemisphere and it is believed that perhaps a million galaxies will be within its range.

### THE DEDICATION OF THE ADMINISTRATION BUILDING OF BELLEVUE HOSPITAL

THE new administration building of Bellevue Hos-

pital, as already reported in *SCIENCE*, was dedicated on September 11, with exercises, over which Dr. S. S. Goldwater, commissioner of hospitals, presided. Mayor F. H. La Guardia was the principal speaker.

Bellevue Hospital is now in its two hundred and fourth year. The new Administration Building substantially completes a long-range program dating back to 1906 when the first Pavilion of the present Bellevue Hospital was completed.

The new Bellevue Administration Building was contracted for in October, 1938, and cost about three million dollars. The Federal Public Works Administration aided in its construction, with a Federal grant of about \$1,300,000. The building is connected on the north, east and south with sections of the hospital previously erected; its main façade faces west towards First Avenue. The exterior treatment of the building is of modified Georgian design, with granite to the first floor level, Harvard brick with limestone trim up to the main cornice. The following details in regard to the plan of the building have been made public:

In the basement are maintenance shops and locker rooms for the male and female help, and a Clothing Exchange Bureau conducted by the Social Service Division.

The main feature of the ground floor is a walnut paneled entrance lobby, designed to give the visitor a feeling of spacious dignity. On the right is a large public waiting room, with the Information Office, where the visitors will assemble before the visiting periods. From four to six thousand visitors will pass through this room during each visiting session. The remainder of this floor is assigned to Administrative Offices, Social Service Department and central Switchboard Room for the entire hospital.

On the first floor are the Episcopal, Catholic and Jewish chapels. Each is decorated with characteristic symbols. The beautiful stained glass windows from the old Catholic Chapel, which was demolished to provide a site for this new building, were installed in the new Catholic Chapel. The remainder of this floor is given over to administrative offices.

The second floor accommodates the record files and the Housekeeping Division.

The third floor houses the administrative offices and classrooms of the School of Nursing.

On the fourth floor are locker rooms for nurses, rest rooms and shower facilities. The remainder of this floor provides quarters for female internes.

The fifth, sixth and seventh floors present quarters for male internes. Accommodations are provided in this building for approximately 250 internes.

The architects of the Administration Building were McKim, Mead and White. It was constructed for the Department of Hospitals under the direction of the Department of Public Works.

### THE NATIONAL DEFENSE PROGRAM OF THE AMERICAN CHEMICAL SOCIETY

PLANS for a national defense program were announced at the Detroit meeting by the American Chemical Society. The society, with a membership of more than 25,000, is said to be the largest professional organization of its kind in the world.

A complete census of all chemists and chemical engineers in the United States, recording in detail the specialized services which they are prepared to perform, will be taken at the request of the Executive Office of the President of the United States. This is characterized as a step of major importance in the development of preparedness plans and one which will avoid the waste of trained scientific men and technicians which occurred in the World War. The casualties among scientific men in the early days of the last war deprived the Allies of vital technical services. The death of Mosley at Gallipoli, the British physical chemist, is given as an example. When the gravity of the situation was realized, the Allied military authorities hastily recalled scientific men from the trenches, but not before irreparable losses had been sustained.

Records will be compiled of the qualifications of chemists and chemical engineers so as to enable prompt and correct allocations of personnel if and when needed in event of an actual emergency. More than 70,000 questionnaires will be required to assemble the necessary data.

In accordance with its charter "the American Chemical Society shall, whenever called upon by the War or Navy Departments, investigate, examine, experiment and report upon any subject in pure or applied chemistry connected with the national defense." The society is one of the very few organizations operating under a Federal charter.

In the present situation England and Canada have listed their technical personnel in accordance with capabilities, and, while advantage can be taken of their experience, details of the roster for the United States will be a responsibility for the best thought of leaders in chemistry and chemical engineering.

The work, which will be financed by the society, will be directed by E. M. Billings, of the Eastman Kodak Company, Rochester, N. Y., and will be related to the national project to assemble a roster of scientific and specialized personnel, which is described in *SCIENCE* for August 16 by Dr. Leonard Carmichael, president of Tufts College, director. James G. O'Brien, defense liaison official for the Civil Service Commission, is the executive officer of the national organization. Mr. Billings is being assisted by about fifty leaders in various specialties in chemistry and chemical engineering in the initial task, now nearing completion, of devising a classification code. After it has been decided which qualifications are most funda-