

THE first building of the Army Medical School, located at the Walter Reed General Hospital, in Washington, is completed and is nearly ready for occupancy. The cost of the unit was \$450,000. It contains laboratories for the various sections, operating rooms and a roentgen-ray unit. All typhoid vaccine for the army and U. S. Public Health Service will be made in one of the laboratories.

J. HARRISON BELKNAP, formerly assistant professor of electrical engineering at the Oregon State Agricultural College, has joined the control engineering division of the Westinghouse Electric and Manufacturing Company, East Pittsburgh, Pa.

UNIVERSITY AND EDUCATIONAL NOTES

AT the December meeting of the Rockefeller Foundation a total sum of \$2,725,000 was appropriated in fulfillment of various pledges given previously by the foundation. In addition it was voted to continue certain fellowships in United States educational institutions. Of these appropriations, \$1,000,000 will go to the medical school of the University of Chicago, \$1,000,000 to the medical school of the University of Toronto, and \$225,000 to the medical school of the University of Iowa. The remaining \$500,000 is for the endowment of the medical school of the University of Alberta. The fellowships to be continued are in physics, chemistry, medicine and the biological sciences under the auspices of the National Research Council.

ST. STEPHEN'S COLLEGE, at Annandale on Hudson, N. Y., has received \$125,000 from the estate of the late John R. Hegeman, of New York.

DR. JAMES ARTHUR HARRIS, of the Cold Spring Harbor Biological Laboratory, with which he has been associated since 1907, has been elected professor of botany and head of the department of botany of the University of Minnesota. He will take up his new work in September, 1924.

DR. JAMES H. MEANS, formerly assistant professor of medicine, has been appointed Jackson professor of clinical medicine, in the Harvard Medical School, to succeed Dr. David L. Edsall, the dean of the Medical School. Dr. Means is chief of the medical service at the Massachusetts General Hospital, Boston, in which capacity also he succeeds Dr. Edsall.

R. T. HASLAM has been promoted to a full professorship in the School of Chemical Engineering Practice, Massachusetts Institute of Technology.

PROFESSOR O. W. ALBERT, of Grinnell College, has been appointed head of the department of mathematics at the University of Redlands.

DISCUSSION AND CORRESPONDENCE A SUGGESTION AS TO THE APPROXIMATE CHARACTER OF THE PRINCIPLE OF RELATIVITY

THE special principle of Relativity may be formulated partially somewhat as follows: In all systems moving with uniform velocity with respect to the fixed stars (called inertial systems by definition) the "laws of nature" take an especially simple form, and are the same for all the inertial systems.

Something equivalent to this seems to be an essential part of any rigorous formulation of the special principle. Now such a formulation demands an examination of what we mean by "laws of nature." Obviously we can not include among our laws of nature a statement that the stellar system has a certain apparent velocity, for this velocity is different for different inertial systems. We evidently mean that the laws of nature are the laws governing the happenings which take place solely in any one of the inertial systems, supposed isolated from the rest of the universe.

These considerations allow us incidentally to make an alternative formulation of the principle of relativity as follows: "It is actually impossible to detect uniform motion with respect to the fixed stars except by looking at them."

The necessity of supposing our inertial system isolated from the rest of the universe must arouse considerable misgiving, for it is not at all certain that it is physically possible to isolate a part of the universe from the rest. On the contrary, in such experiments as the gyroscopic compass and Foucault's pendulum, we have important evidence that happenings in our own system are essentially connected with all the rest of the universe, for the only significance which can be attached to an invariable direction, which these experiments show to exist, is a direction invariable with respect to the stellar universe. (Perhaps one reason that this connection is not more often prominent in our minds is that we are still very far indeed from being able to give that mechanistic account of the connection that our minds so insistently demand.) Admitting then the fact of such a connection, we find the ignoring of it by the principle of relativity logically difficult to justify. But we may physically justify the neglect of it if we can see any reason to expect that the effect of a translation may be very much smaller than that of a rotation. Such a difference is at once found in the enormous difference of actual velocities of translation and rotation when measured in cosmic units. In dealing with phenomena of connection with the entire universe, we naturally expect to employ coordinates relative to the entire universe. Now the earth in rotating about its axis runs through the entire possible range of co-