

passed freely through the earth, and *vice versa*. Lord Kelvin still hoped that it did, but from the results of that experiment, which proved that it did not, he could see no way of escape. The second cloud over the dynamical theory was the Maxwell-Boltzmann doctrine of the partition of energy. Here the outlook was less sombre. He held that mathematics had not proved the doctrine and that the doctrine was not true. Still he did not know any one but himself that attacked it, and his own views had been attacked by Poincaré, Lord Rayleigh, and other distinguished mathematicians, though none of his assailants had proved the proposition. Lord Kelvin proceeded to give some illustrations of the doctrine, and emphasized the labor and difficulty of putting it to experimental tests. Its mathematical consequences indeed sometimes appeared to be contrary to common sense, but that was not conclusive, for mathematics must never be judged by common sense. Still, within the last few months he had worked out a large number of cases and had obtained results that did not agree with the doctrine. The simple way, therefore, to destroy this second cloud on the dynamical theory was to drop the destructive general conclusion of the Maxwell-Boltzmann distribution. In conclusion, Lord Kelvin brought forward some considerations respecting the structure of the atom and the nature of the ether, regarded as a true imponderable outside the law of universal gravitation.

UNIVERSITY AND EDUCATIONAL NEWS.

THE endowment fund committee of Brown University has issued a statement of the condition of the fund. The effort to raise \$1,000,000 in order to secure the conditional gift of \$250,000 of John D. Rockefeller resulted in securing in cash, legacies and pledges \$700,000. The remaining \$300,000 must be pledged by commencement in order to make Mr. Rockefeller's gift available.

YALE UNIVERSITY has purchased land opposite the State Hospital for its medical school.

THE Cambridge University General Board proposes to establish a lectureship in ethnology

for Dr. Haddon and a lectureship in bacteriology and preventive medicine for Dr. Nuttall. New lectureships in experimental physics and agricultural chemistry are also recommended.

THE *Educational Times* states that active steps are now being taken for the establishment of Commercial Universities at Marseilles, Hamburg, and Berlin. The advance of commercial education is very marked in Japan. The establishment of an Imperial High School of Commerce at Tokio has had such satisfactory results that a like school is now in contemplation for Osaka, and the creation of a degree of Doctor of Commercial Science is under discussion. There are four grades of commercial schools in the Japanese Empire. In schools of the second and third grades, designed for youths who have completed their fourteenth year and will devote three to five years to special study, amongst the subjects taken up we find ethics, Japanese, Chinese, and English (or other foreign language), mathematics, geography, history, economics, commercial legislation, bookkeeping, commodities, principles of commerce, business practice, and gymnastics, together occupying respectively thirty and thirty-three hours a week, with a five years' course. In the third grade correspondence and commercial arithmetic figure as additional subjects, and the whole course is more extensive.

EDWIN A. ALDERMAN, for several years president of the University of North Carolina, has accepted the presidency of Tulane University, New Orleans.

DR. CHARLES W. GREEN of Leland Stanford University, has been elected to the professorship of physiology in the University of Missouri. Dr. Green is a graduate of Leland Stanford, '92, and for the last two years has been assistant professor of physiology at that University.

HERBERT G. LORD, A.M. (Amherst), has been appointed professor of philosophy in Columbia University. He will have charge of the introductory collegiate courses.

TEACHERS COLLEGE, Columbia University, has awarded four fellowships as follows: Frank P. Bachman, A.B. (Chicago); Edwin C. Broome, Ph.B. (Brown); Rufus C. Bently, A.B. (Nebraska); John W. Hall, A.B. (Colorado).