have, and they are most desirable, because they are the real teachers in practical life, only you must not allow yourself to be discouraged, but rather to be strengthened by them, in your determination to succeed.

A fond mother has sometimes come to me with a doleful story that her son, "an excellent young man," had tried several things in life and had always failed, through some untoward circumstance, but that she felt sure he would succeed if I would only give him a trial in my own particular pursuits. On some occasions I have perhaps yielded to such representations, but found that the "excellent young man," though commencing with a certain vigour, soon tired of the new occupation when he approached its difficulties. He could not realise the fact that the secret of success lies not in the avoidance of, but in the victory over difficulties, that each disappointment teaches an important lesson, and that by taking these lessons to heart without swerving from his purpose he would soon find himself possessed of a power exceeding his most sanguine expectations.

Success in life depends in fact much more upon diligence and steadiness of purpose than upon the more brilliant qualities possessed by an individual; but in order to give force and direction to the sterling qualities within him, it is most important that means should be brought within his reach of enriching his stock of useful information. The Birmingham and Midland Institute, counting its 2688 students of various degrees and of both sexes, has accomplished this important object in a manner never before dreamt of; but not content with this splendid result, the Council has made provision for a further extension of its beneficial action through the erection of this magnificent lecture hall, which it is my proud privilege to inaugurate this evening, for the use of our members.

UNIVERSITY AND EDUCATIONAL INTELLIGENCE

CAMBRIDGE.—One interesting outcome of recent changes is the promulgation by the Governing Body of Caius College of the following scheme, to take the place of the regulations providing for the annual delivery of the Thruston speech on the progress of medicine from the time of Dr. Caius, by a medical graduate, who received the sum of 18*l.* :—The money—about 54*l.*—shall be given triennially to that member of the College who has published in the course of the preceding three years the best original investigation in physiology (including physiological chemistry), pathology, or practical medicine; the person to whom the prize is awarded being required to give an account of his investigation in the form of a lecture in the College. If within the specified period no investigation of sufficient merit shall have been made, the money shall be carried forward to augment future prizes; the first prize will be awarded in 1884.

SOCIETIES AND ACADEMIES

LONDON

Entomological Society, October 5.—H. T. Stainton, F.R.S., president, in the chair. — Exhibitions: Mr. R. McLachlan, a specimen of *Gastrophysa raphani*, Fabr., bred from a parthenogenetic ovum.—Mr. T. Wood, an abnormal specimen of *Notiophilus biguttatus*, Fabr.—Mr. R. Meldola, on behalf of Mr. W. J. Argent, some interesting varieties of British *Lepidoptera*.—Mr. H. B. Pim, a specimen of *Harpalus discoideus*, Fabr.—Mr. E. A. Fitch, *Lasius mixtus*, Nyl., an ant new to Britain.—Mr. A. S. Olliff, a specimen of *Papilio Americus*, Koll., with abnormal neuration.—Communications: the Secretary read a letter respecting the ravages of *Lopaphus cocophages*, Newp., destructive to cocoa-nut trees in Fiji; and some further communications from the Colonial Office relative to locusts in Cyprus, &c.—Papers read: Mr. D. Sharp, Descriptions of some new *Coleoptera* from the Hawaiian Islands.—Mr. C. O. Waterhouse, on some new South American *Coleoptera* of the family *Rutelidæ*.—Prof. Westwood, description of the immature state of a Ceylonese insect apparently belonging to an undescribed genus.—Mr. P. Cameron, notes on *Hymenoptera*, with descriptions of new species.

PARIS

Academy of Sciences, October 10.—M. Wurtz in the chair.—The following papers were read:—On the first volume of the "Nouvelles Annales de l'Observatoire de Bruxelles," by M. Faye. It contains a new uranometry, and a repertory of constants of astronomy. M. Houzeau has represented the Milky Way on a large scale by means of curves of equal luminous intensity. He distinguishes thirty-three luminous masses, carefully determining their position. Our solar world is situated almost exactly in the plane of the great celestial circle these nearly form, and is probably near its centre. The "Catalogue des Constantes" comprises seventy-six determinations of the solar parallax, extending over twenty-one centuries. The increasing precision of astronomical measurements is well brought out.—M. Daubrée presented a large specimen of a holosideric meteorite from Cohahuila, Mexico. It contains chrome-iron, a mineral not before met with in a metallic meteorite. Prof. Laurence Smith also found in it another chromiferous mineral, *Daubrélite*.—On the employment of tar as a preservative against phylloxera, by M. Avignon. A mixture is made of tar and fine sand, and triturated to render it homogeneous. Wood-ash is added; the mixture is put in a hole round the stem in spring and covered with earth. It effectually repels the insect.—A letter of M. Govi relating to a *brochure* by Prince Boncompagni on the unpublished will of Nicolò Tartaglia, noted the fact that the true surname of this celebrated mathematician of Brescia was Fontana. He was called Tartaglia (which means a *stammerer*, and which appears as his name, even in the will) because of difficult articulation arising from a bad wound in his jaw and palate received when he was a boy, during the sack of Brescia in 1512.—Comet discovered by Mr. Denning on October 4, 1881; observation at Marseilles Observatory, by M. Coggia.—On the part of M. Arnaud, a sample of a new alkaloid from quinquina (of Santander, Columbia) was presented; M. Arnaud calls it *cinchonamine*. It differs from cinchonine by an excess of two atoms of hydrogen, and presents the composition of hydrocinchonine, with which it is probably isomeric.—On the sounds produced in a telephonic circuit during thunderstorms, by M. de Lalagade. He recalls effects similar to those got by M. Thury, which he described in 1878. To amplify the sounds he afterwards added two small microphones to the plate of the receiving telephone; the least sounds can thus be heard 1 m. or more from the second telephone in a quiet room.—Galvanometer with angular deflections proportional to the intensities, by M. Gaiffe. The multiplier frame in the instrument presented (a horizontal galvanometer) was of elliptic form. The deflections are regular under two angles of about 35°, representing 35 milliwebers, on either side of zero, and then diminish slowly, allowing of division of the scale by units to the fiftieth milliweber. With a different curve of the multiplier frame the deflections may be rendered proportional up to about the seventy-fifth degree.—On the innervation of the heart and the action of poisons in lamellibranchiate mollusca, by M. Yung. *Inter alia*, the heart is chiefly innervated by fibres from the posterior or the branchial ganglions, which fibres have an accelerative *rôle*. Rise of temperature accelerates the heart's movements up to 40° C. *Curare*, in strong dose, makes the animal's movements very slow. *Strychnine*, whatever the dose, only causes temporary convulsions, never tetanus; in direct contact with the heart it lessens the number of beats, and causes stoppage in fifteen to thirty minutes. *Nicotine* accelerates the heart-beats, enlarges the heart, and in strong dose causes death. *Veratrine* acts similarly, &c.

CONTENTS