

LECTURE THEATER BUILDINGS AT SOUTH KENSINGTON.

Our illustration this week represents the façade of the new Lecture Theater and Refreshment Rooms, which form the north side of the internal quadrangle of the Museum at South Kensington, London, England. The materials employed are mainly red brick with dressings, and enrichments of terra cotta. This is a government institution, maintained for the encouragement of science and art. The first establishment of this department was about twenty years since, the encouragement of art having been chiefly furthered, previous to that time, by the Royal Academy, National Gallery, and the Schools of Design. It began as a school of art, the increase of pupils and the growth of the collection necessitating the erection of the present building.

The chief feature of the design is a deeply recessed arcade on the principal floor, the arches being supported on columns of terra cotta, modeled by the late Godfrey Sykes. The soffits of the arches are filled with white majolica. Figures holding shields of the same material are also introduced in the spandrels on either side of the circular panels in the arched recesses, and in the square panels above the door. The three circular panels just alluded to, are filled with glass mosaics, by Messrs. Salviati, Rust & Simpson. The figures, which represent History, Poetry, and Alchemy, are executed in colored tesserae upon a gold background.

The door, which forms the central feature of the lower story, is in six panels, with figures of Newton, Davy, Bramante, Michel Angelo, Watt, and Titian. It may be remembered that this bronze door attracted a great deal of notice in the Paris Exhibition. It has since been richly gilt. The brick work of the ground floor is banded with four courses of molded bricks, the intermediate portions being rubbed and gaged. The arch heads of the large openings to the right and left of the central building are filled with lunettes in mosaic work. These mosaics were executed in the South Kensington Museum by the female students, the materials being supplied by Messrs. Minton, Hollins & Co. The rectangular panels in the upper portions of the wings, and the large picture which occupies the tympanum of the pediment,

were carried out in the same way. The upper story of the theater building consists of a series of triple arches placed in square headed recesses, the spandrels above the arches being filled with a diaper of red terra cotta. The subject of the design in the pediment is the Exhibition of 1851. Four allegorical figures, representing the four quarters of the globe, receive from Queen Victoria wreaths and rewards, while natives of the different countries bring their manufactures and produce to the Exhibition. In the background is the building. The figures are executed in buff tissue, the Exhibition being black, and the groundwork of the whole, gold. On the pedestals at the corners of the building will be colossal groups in terra cotta, designed by Mr. Bale, a student of the Lambeth School of Art. One of these figures is already on the ground. The summit of the roof is surrounded by a perforated screen of cast iron.

Meat Extracts and Beef Tea.

Dr. P. Müller has given, in the *Moniteur Scientifique*, an account of his researches on this subject, and his conclusions are as follows: Meat extracts are neither directly nor indirectly food, for they do not contain albuminoid matter, neither do the nitrogenous principles which they contain arrest dis-assimilation; that is, they do not prevent the waste of the organic matter which composes the body. In small doses, these extracts are useful, by the stimulant action of

triment, and only tend to keep the convalescent weak, being thus ill-fed, or rather, not fed at all. These conclusions are substantially those entertained by Liebig and many other investigators in the same field.

Robinson's Self-acting Mules for Spinning.

This invention consists of an enlargement on the scroll or wheel of the back jack band of the Sharp and Roberts and other like spinning mules, so arranged that just previous to

the end of the inward or winding-on movement of the carriage, the back jack band—which is the one that regulates the movement of the carriage when it is drawn out by the front jack band—will be wound upon the enlargement so as to considerably increase the tension of the front jack or drawing out band, for giving the carriage a quicker movement—as the back jack band is delivered from the enlargement at the beginning and during a small portion of the outward movement—than the ordinary movement, and faster than threads are delivered from the rollers, for taking out the kinks which get in the yarns when slackened up by the rising of the fallers to let said yarns run up to the points of the spindles, ready for twisting, as the carriage runs out again.

SOUTH KENSINGTON MUSEUM, LONDON ENGLAND.

The improvement differs from the arrangement of the enlargement on the scroll which works the front jack band or drawing out band, in that, while it pulls out the kinks, it does not put drag in the yarn; that is, it does not draw out the yarns or threads any finer than they are drawn without it, as the other arrangement does, for the slacking off of the drawing out band compensates for the accelerated motion of the carriage in the first part of its movement, so that, notwithstanding such accelerated movement, the carriage does not move any further during the whole stretch than it would if the enlargement was not used; whereas, in the other arrangement—that is, where the enlargement is on the drawing out scroll and the accelerated motion is caused by the running of the cord on to the enlargement at the beginning of the outward movement—the gain of the carriage on the delivery of the rollers is kept up throughout the stretch, and thus more stretch or drag is put in the yarn than is desirable.

Mr. Feargus O'Connor Robinson, of Fall River Mass., is the inventor of this improvement.

the potassa salts, which promote digestion and circulation; in strong doses—too large at once—these substances may have a very injurious effect. When given to convalescents from serious diseases, especially if the system is exhausted by prolonged abstinence, the potassa salts, present in these extracts in large quantities, will act more injuriously, because the system has lost a great deal of chloride of sodium; instead, then, of promoting digestion, these substances will interfere with it; (1) by the direct action of the salts of potash on the blood globules, whereby the absorption of the oxygen by these globules is greatly decreased; (2) by the predominance of such salts, in the serum of the blood, which only physically dissolve carbonic acid and do not allow the normal quantity of that gas to be exhaled, and thus impede the access of oxygen. Medical men should bear in mind that, if given alone, these extracts, and likewise beef tea, are no nu-

A MONSTER ENGINE.—One of the largest stationary engines in the world was recently put into operation a few days ago at the Lehigh Zinc Works, at Friedensville, Lehigh county, Pa. It is of three thousand horse power; it weighs 650 tons, and is capable of pumping, if necessary, from 15,000 to 17,000 gallons of water per minute, and this from a depth of 300 feet. The heaviest pieces are sections of beams weighing 24 tons each. The cylinder is 110½ inches in diameter, and the stroke 10 feet long. Two wrought iron shafts weigh 16 tons each, and the crank pins one ton each. The piston rod is 14 inches in diameter. The crosshead weighs eight tons. The connecting rods weigh 11 tons each, their length is 41 feet 2½ inches, and their diameter 9 inches in the neck, and fifteen inches in the middle.

THE boiling point of bisulphide of carbon is 118½° Fahr.