

session, which appears to have been simply this:—These specimens of the Italian school of art were picked up by Sir Joshua Reynolds during his tour in the Low Countries, in one of the towns where they had been originally sent for the purpose of manufacture into tapestry. At Sir Joshua's death, and at the subsequent sale of his effects, they passed with one intermediate hand into the possession of Mr. Nicolay. A committee was appointed to consider the propriety of having forthwith an exhibition of old masters in connection with the newly-arrived cartoons, the proceeds to form a reserve fund for a permanent public gallery and studying school, and are proceeding to carry this desirable project into effect.

SEPARATION OF PAUL'S WHARF SEWAGE FROM THE RIVER.—Mr. Moffat, C.E., formerly engineer to the London Sewage Chemical Manure Company, has offered to the City Sewers Commissioners 2s. 6d. per ton of dry manure, to be manufactured by him from this sewage in premises to be erected at his own expense near the mouth of the sewer. He proposes to sink an intercepting well, with a shield to prevent the ingress of the tide, and to raise the sewage out of this well by steam-power into tanks, where it will be chemically treated by mixing it with hydrate or milk of lime, so as to precipitate many of the matters in solution, along with those in suspension, to the bottom, after which the water will be allowed to flow off into the Thames, and the residual matter removed and dried, and moulded into portable shape. In storms, when the sewage will be greatly diluted, there will be an intermission of the process. The medical officer of health, and the surveyor to the City Commissioners, have reported rather favourably of the proposal,—recommending, however, that such works should only be allowed as an experiment for one or two years, in case of turning out either a nuisance, or a hindrance to the realisation of any more complete or comprehensive measure. In their report they also point out the fact that objections had been taken by adequate chemists to much the same proposal when made by the late Sewage Chemical Manure Company, and that, although such a measure would tend to clear the river of deleterious matter, much of its more subtle essence would still remain in the water ultimately turned into it as heretofore. Mr. Moffat proposes, of course, to dispose of the manure to his own advantage, in fertilising Plumstead Marsh, or otherwise.

GRANARIES, &c., AT MANCHESTER.—In connection with the lately opened extension of the Manchester, Sheffield, and Lincolnshire Railway to Gainsborough, and for agricultural traffic, arrangements on a large scale are being made. The goods station is on the level of the street, and some 20 feet below the passenger station. But the goods warehouses, as well as the corn warehouses, will be connected by a viaduct, on the same level with the railway, and thus save the cost of "lifting." At present every truck of goods is lowered and hoisted by steam, worked on the locomotive principle, for the sake of economising the working. The arches below the station are arranged and subdivided for the different local traffic, which has grown so much of late, that the company uses them itself, and foregoes a rental of 300*l.* a year on each of seventeen such arches. Of these, eleven or so are used by the London and North-Western, and the rest by the Lincolnshire line. For the corn stored in the warehouse, no one is directly charged with rent. The warehouse more particularly used for this purpose consists of a series of flats, about 9 feet high, supported by cast-iron columns. The sacks are lifted in and out by steam power. Each flat is about 180 feet long. The mere fact of making a connection between the stations of the two companies at Sheffield, says the *Railway Chronicle*, at once created a corn traffic in Manchester, which has steadily increased. It has heretofore come from Nottingham and Lincolnshire either by canal, or by the more circuitous course of the Manchester and Leeds Railway.

THE BENTINCK TESTIMONIAL.—Workmen have been boring near the centre of Mansfield Market-place, to ascertain the nature of the proposed foundation of a structure which is to be erected from a design by Mr. Hind, after an early English market-cross.

THE WONDERS OF GUTTA PERCHA are by no means at an end. Its Protean purposes appear to be themselves outwied by its singular properties. Several new ones have been recently discovered. Mr. Torrop, of Edinburgh, has communicated to the Royal Scottish Society of Arts, a notice of one peculiar property. When cast and rolled into sheets, it assumes the nature of a fibrous substance—it acquires tenacity in a determinate direction. When in the roll or sheet this tenacity is longitudinal. But if a strip be cut from the breadth, two peculiarities occur: the strip is susceptible of a definite elongation to nearly five times the original length, and its direction of tenacity is reversed. When it is considered that gutta percha is originally a fluid substance, or gum, these peculiarities are indeed curious and remarkable. In fact, when we keep its multiform uses and its other properties in view, together with such a peculiarity, it assumes all the importance, or at least the similitude, of a sort of vegetable iron; so idea, however, fanciful as it may be, which another contradictory property, also newly discovered, only tends to upset; for it is said to be, like glass, an electric, only it far exceeds glass itself as such. A Liverpool correspondent of the *Carlisle Journal*, drawing attention for the first time to this peculiarity of gutta percha, says—"Its electric properties, so far as I am aware, have not been publicly noted; and I venture through your columns to call attention to this quality, which it possesses in a remarkable degree. If a piece of sheet gutta percha be laid upon a table-cloth or silk handkerchief, and stroked quickly with the hand, and then lifted from the table, it emits brilliant flashes of electric light, and considerable sparks may be drawn from it by any conducting substance. The ease with which gutta percha is excited contrasts strongly with the difficulty of exciting glass and resinous substances, especially in damp atmosphere; and there can be no doubt that it may be successfully employed to produce large quantities of electricity. The machine for this purpose may be extremely simple: an endless band of sheet gutta percha stretched over two rollers (one of them turned by a winch), pressed slightly by a cushion and having a rod or wire touching the revolving band and in connection with the conductor of an ordinary electrical machine, would produce a constant supply of electricity, in a quantity proportioned to the surface employed, which may be very considerable; and I shall not be surprised if, by these simple and economical means, effects are produced equal to those attained by the largest electrical machines now in use. I may add, as a useful hint to experimenters with the sheet gutta percha, that it may be readily joined by laying the edges together, and cutting off a shaving with a pair of scissors moderately heated."—The supply of the article is still going on. The vessel *Duke of Bronte*, arrived from Singapore, has recently brought 36 bags, 112 bales, 11,347 blocks, and 1,934 other packages, as a portion of her cargo, consigned to order; and the *Anne Watson*, also from Singapore, has brought 7,402 packages, 120 blocks, and 3 baskets to order.

USE FOR THE PITCH LAKE OF TRINIDAD.—An important communication has been made by Earl Dundonald to Lord Harris, governor of Trinidad, on the substitution of bitumen from the pitch lake of La Brea, in place of coal, to the extent of two-thirds of this fuel, for the generation of steam, in the manufacture of sugar, &c.; thus also restoring to the soil, in form of manure, the refuse of the cane fields now used for fuel. In a furnace, in which it has been successfully used, the bitumen, it appears, is poured into a recess, or pit, just below the fire-bars, leaving sufficient room for a rapid current of atmospheric air, and as it is decomposed, the dense smoke and gases are carried through the incandescent fuel, and go off in flame and great heat. Earl Dundonald has forwarded a plan of this furnace to the governor. The *Port of Spain Gazette* expresses a hope that the subject will attract the attention of the Royal Mail Steam-packet Company, whose intercolonial steamers consume a vast quantity of coal, conveyed at great cost from England to the several depôts, for the whole of which, under a proper adaptation of their furnaces, the pitch might prove a cheap and effectual substitute.

ELECTRO-TELEGRAPHIC PROGRESS.—The admiration excited when first the locomotive express went ahead of all other conveyance of intelligence was only lately excelled, we may say for the first time in this country, by the transmission of a full report, three close columns in length, of the Coldden banquet proceedings, at Wakefield, per electric telegraph, to the *Times*, in which the whole, down to their close, on the way to 12 p.m., was published by 3 a.m.; the whole process of reporting, transcribing, telegraphing, retranscribing, type-setting, and printing, being accomplished,—actually finished—at one end of the country in less than four hours after the words were spoken almost at the other end of it. The telegraph is now beginning in earnest to do its duty; and it is to be hoped that this only drag upon its lightning speed that now remains, viz., extravagant and impracticable charges, will ere long be cast off as an incubus that can no more profit the conveyancers of intelligence than its publishers.—So constantly is the telegraph in requisition for the purposes of the press on the other side of the Atlantic, that one of the New York papers is about to have an "independent" track constructed from New York to Washington and Boston, for its own exclusive use. The eastern route will be 245 miles, and the southern 225 miles.

YORKSHIRE ARCHITECTURAL SOCIETY. At the meeting of this society, the Hon. and Rev. P. Y. Savile, rector of Methley, gave notice, that at the next meeting he should ask for a grant of 10*l.* for the restoration of a fine oak roof, which he had discovered during certain repairs in his church, concealed above a flat plaster ceiling, and he also particularly invited the attention of the members to the peculiar features of the building. It was accordingly resolved that a special meeting of the society should be called at Methley early in May, for the purpose of examining the church. A paper was read by Mr. W. H. Dykes, architect, of York, "On the form and Management of Churches," giving some account of the various types of churches which had been common in different ages, through the Christian world, and showing that, nevertheless, they had all agreed in certain peculiar features, and especially in their having had a distinct chancel, separated by screens from the body of the church.

THE TYNE GLASS TRADE, according to the *Newcastle Guardian*, is only now reaching the climax of its decline. Out of the numerous firms formerly engaged in the window-glass trade, two only remain, and these appear to be not only languid but expiring also. Ridley and Co., a firm of a century standing, have suspended their works, and will probably not resume them. Only two of the flint-glass works remain. Various causes, none of them our authority thinks sufficient, are alleged for the depression of this trade.

NOTICE.

"BUILDINGS AND MONUMENTS, MODERN AND MEDIÆVAL," being Illustrations of recently erected Edifices, and of some of the Architectural Works of the Middle Ages, with Descriptive Particulars. Edited by George Godwin, F.R.S., Fellow of the Royal Institute of Architects, &c., &c., &c.

Under the above title it is proposed to publish, in bi-monthly parts, price 2s. 6d. each, the principal Illustrations of Modern and Mediæval Buildings which have appeared from time to time in *THE BUILDER*, with their accompanying descriptive particulars. Each part will contain about eight plates, folio size, and eight pages of letter press, with plans and details. The engravings will be printed separately, with care, on a tinted paper.

The first part will be issued in time to be forwarded with the magazines for May 1, and will contain:—

- Her Majesty's Marine Residence, Osborne; with Plan.
- The Carlton Club House, Pall Mall.
- Church of St. Isaac, at St. Petersburg; with Details.
- Kensington Union Workhouse.
- The Liverpool Branch Bank of England; and Details.
- The New Throne, Canterbury Cathedral.
- The North Porch, Restored, of St. Mary Redcliffe, Bristol.
- The Interior of Lincoln's-Inn Hall.

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