

THE MORGAN HOSPITAL SCHOOL, DUNDEE, SCOTLAND.

We publish herewith an excellent view, selected from the *London Builder*, of an hospital recently erected at Dundee, Scotland. The circumstances attending its establishment are curious, and involve considerations of some importance.

Mr. John Morgan, whose name it bears, died in 1850. On the death of his last surviving sister, on the 15th of January, 1848, certain writings were found in her repositories, executed by her brother, containing some personal bequests of small amount, and declaring it to be his wish that the bulk of his fortune should be employed to establish in Dundee, the place of his nativity, an institution for the education of boys, on the model of Heriot's Hospital in Edinburgh. Previously to the death of his sister, Mr. Morgan had fallen into a state of mental imbecility, and a *curator bonis* was appointed to take the management of his affairs. The writings alluded to passed into the hands of the curator, and formed the groundwork of litigation which subsisted for some years, and ended in their being declared, by a judgment of the House of Lords, to constitute a good and valid bequest of the fortune of John Morgan, or so much thereof as should be sufficient for the purpose of endowing a hospital for the education and maintenance of 100 boys in the town of Dundee. After the appointment of trustees and governors, measures were taken for the construction of the hospital. A site was acquired, and a design, prepared by Messrs. Peddie & Kinnear, architects, Edinburgh, was approved of and adopted by the governors. The site is nearly triangular, and forms a sort of a wedge between two roads, enclosing about five acres. It slopes upwards from the entrance gate, and the hospital is built in the upper and broader portion of the grounds. The design presents a building quadrangular in form, 200 feet in breadth, 150 feet in depth, with an open court inside. The building may be called Flemish Gothic in style, and is two stories in height, with a center tower rising to the height of 120 feet, and projecting a few feet from the façade. In the ground floor it contains the main doorway, which is formed in a richly molded archway, surmounted by a crocketed label. Over the doorway, in the second story, is a three-light window, headed with cinquefoil tracery, and opening into a projecting balcony. On reaching the height of the ridge of the building—the intervening space being filled in with a clock—the tower is corbelled out in the angles into circular turrets, each capped with a steep, slated roof. Connecting the turrets are carved balconies, also corbelled out from the main walls of the tower. From this point the tower rises in a steep roof, formed in two stages, and exhibits in front a carved group of windows, surmounted by an ornamental gable. The tower terminates in double pinnacles, united by an ornamental crest. On each side of the tower the design exhibits bay windows in the second story, surmounted by steep, crow-step gables. Extending on either side is a range of two-light windows in both stories, the upper being finished by gables flanked and terminated by pinnacles.

Dangers of Benzine Scouring.

M. Dumas, at a recent meeting of the French Academy of Sciences, stated that, in examining the process of scouring fabrics as usually practised by cleaners of old clothes (washing in benzine), he had discovered a novel and dangerous cause of fire. Workmen engaged in this industry had frequently complained of the benzine becoming inflamed during the scrubbing; and in order to test the question, M. Dumas caused a piece of cashmere to be dipped in for a length of 18 feet. Every time the stuff partially emerged from the bath, while being rubbed between the hands, a sharp pricking sensation upon those members and on the face was felt; and finally sparks were emitted from the fabric, sufficient, if the scouring had been briskly continued, to have ignited the inflammable fluid.

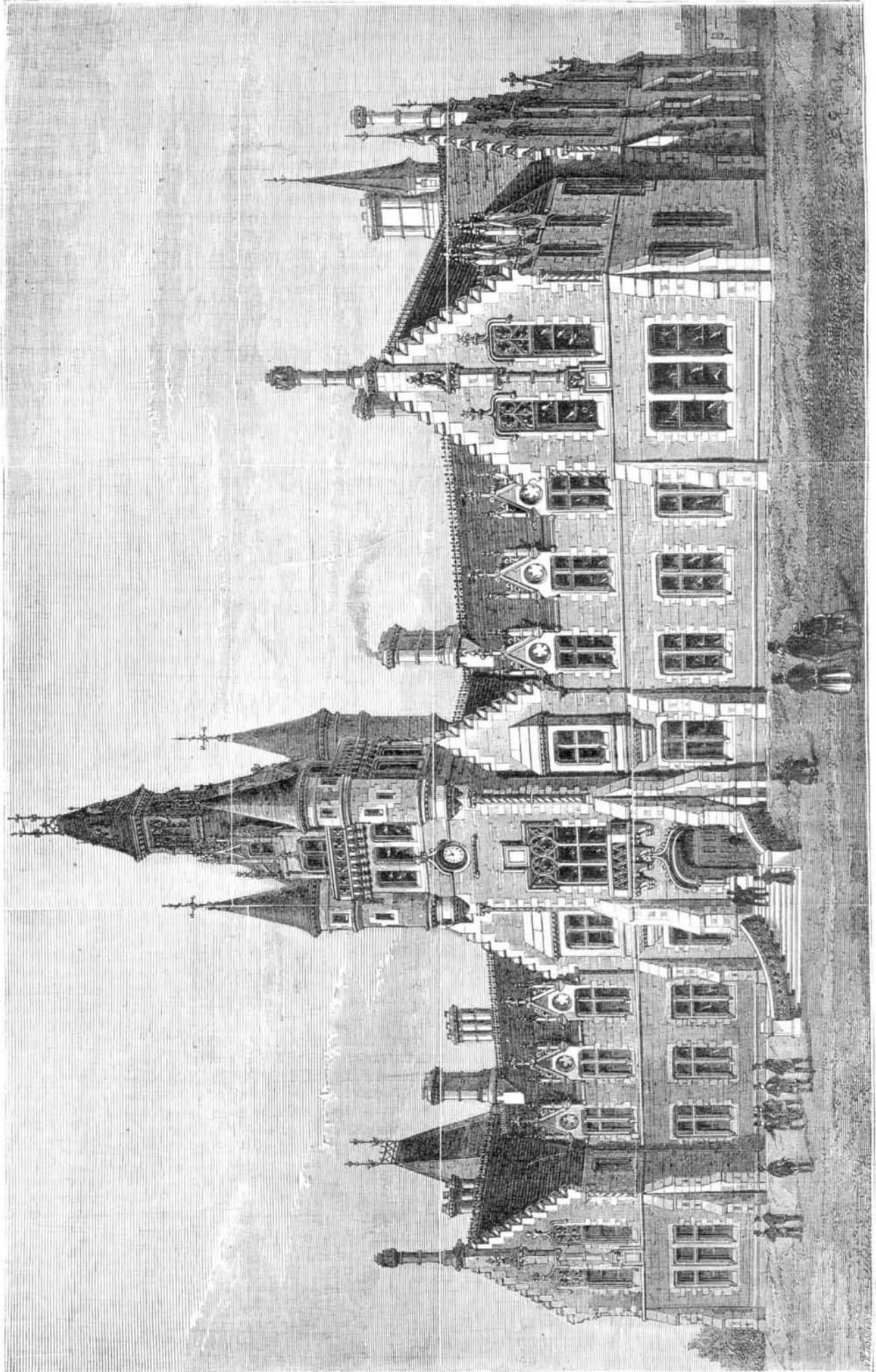
Hereditary Crime.

Some of the most remarkable statistics regarding hereditary disposition to crime that have ever been collected were lately produced by Dr. Harris at a recent meeting of the State Charities and Association. It appears that the attention of Dr. Harris was attracted to a county on the upper Hudson, in New York, in which the proportion of crime and poverty to the entire population was extraordinarily great, there being about one criminal or pauper to every ten inhabitants. The recurrence of certain names among the list of unfortunates also excited his interest, and led him to genealogical investigations which have resulted in the following astonishing statement of fact:

Seventy years ago, a child, having no other name than Margaret, was a vagrant about the locality. There was no almshouse, and it seems that the girl lived as a waif, occasion-

ally helped by the charitable, but never educated and never given a home. She gave birth to children, who became paupers like herself; they increased and multiplied until, up to the present time, nine hundred descendants of the friendless woman can be traced. Of this immense progeny, extending through six generations, two hundred of the more vigorous are recorded as criminals, and a large number as idiots, lunatics, prostitutes, and drunkards. In one single generation there were twenty children, three of which died young, and the balance survived to maturity; but nine were

It was found that on the first day the observations were scattered through a very large range of error, the difference in time between the records of the event and of the observation varying in fact between the extreme values from 0.16 to 0.08 of a second. The personal equation proper on the second day was between 0.2 and 0.3 of a second, and from that time it steadily decreased until it amounted only to one seventh of a second; it then gradually increased until the twelfth day, when amounted to 0.22 of a second. While this variation in personal equation occurred, the range of



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sent to State prisons for aggregate terms of fifty years, and the rest were constant inmates of penitentiaries, jails, and almshouses.

The Theory of Errors of Observation.

Mr. C. S. Peirce, in an interesting article on the laws of errors of observation, and the nature of the so-called personal equation, gives the results of some experiments made upon an entirely untrained observer, a young man about eighteen years of age, who had had no previous experience whatever in observations. He was required to answer a signal consisting of a sharp sound like a rap, his answer being made by tapping upon a telegraph operator's key, nicely adjusted. Both the original rap and the observer's tap were recorded by means of a delicate chronoscope, and five hundred observations were made on every week day during a month.

errors or discordances was constantly decreasing, until on the twenty-fourth day the probable error of the result did not exceed one eightieth of a second. This is considered to clearly demonstrate the value of such practice in training the nerves for observation; and he recommends that transit observers be kept in constant training by means of similar observation of an artificial event, which can be repeated with ease and rapidity, it not being essential, he thinks, that those observations should very closely imitate the transit of a star over the wires of a telescope, inasmuch as it is the general condition of the nerves which it is important to keep in training more than anything peculiar to this or that kind of observation.—*Harpers' Magazine*.

The scrapings from oiled floors should be placed in the open air. They are liable to spontaneous combustion.