

break had previously been known, 17 per cent. of the 780 inhabitants being attacked. On enquiry, the disease was traced to a solitary house in a parallel valley some miles distant, and separated from Lausen by a mountain range. Six houses with wells of their own escaped the fever, and this threw suspicion on the public water supply of the village. It was noticed that the irrigation of the meadows below the distant and solitary house increased the supply of water in the Lausen spring. In June, 1872, the farmer who occupied the solitary house returned from a journey and fell ill of typhoid. Subsequently three other members of his household took the fever, and at this time (the beginning of August), the fields were irrigated from a brook which received all the sewage from the farm, and in which the soiled linen was washed. The brook was directed into a hole just above the fields, and 18 cwt. of salt was dissolved in the brook. The Lausen water, on being tested, showed the presence of the salt. With a view to ascertain whether the communication was through fissures in the rocks, or whether the water actually percolated through the rocks, 2½ tons of flour were thrown in the brook, but no turbidity was observed at Lausen. The value of this evidence is vitiated by a remark that, at the time of the irrigation, when the fever first broke out at Lausen, the water was observed to be of unpleasant taste and *turbid* in appearance. Two things, however, appear to be clearly proved by the observations on this case. Firstly, that water contaminated with sewage matter does not produce typhoid (or necessarily any disease), unless derived from typhoid patients; and, secondly, that germs of infectious disease may remain in water to be carried great distances when the water is not freely exposed to the oxidising influence of the air.

## Notes on Art.

### METAL WORK.

BEFORE we begin to examine the Exhibition of the Old Masters at Burlington House, which opened its doors on Monday, and the various exhibitions which will crowd upon us with the early days of spring, it may be well to turn to certain phases of art about which less is generally known than about paintings and sculpture. I propose, therefore, to deal very briefly with art metal work, and to take iron as the subject of this paper.

The most important metal is, no doubt, iron; but few people seem to realise that iron is used for the purpose of art in two perfectly different ways. It may either be melted and poured into moulds, used as cast-iron, that is, or it may be made red hot and wrought with hammers or tools; but there is a difference in the quality of the iron which is used for the respective purpose. Cast-iron contains some four per cent. of impurity which renders it fusible, while iron which is intended for the fashioning by the hammer has to be as pure as may be, and is, indeed, only fusible at very high temperatures. Examples of both kinds are not difficult to find in the streets of London. In many an out of the way square, delicate examples of wrought-iron still linger—gates, delicate tracery in hall doors, and sometimes, though rarely, as gratings over

windows. The city is full of such examples; the churches, especially where the sword-rests of the aldermen remain to attest the love of the city fathers for such work. All Hallow's, Barking, and Great St. Helen's, Bishopsgate, contain specially good examples of such wrought-iron work, and are well worth a visit. The wrought iron work in Venice, Florence, and other Italian cities is exquisite, as it is also in some parts of Switzerland—Lucerne, for instance—and the South Kensington Museum is rich in good examples of Continental wrought-iron work.

As regards cast-iron work, we are only too familiar with the associations that are far from artistic, and are apt to forget that it may be made to assume very beautiful forms. Perhaps the oldest of these are the quaint fire backs, fine specimens of the art of the founder, still to be met with in old country houses where they may have been in use for three hundred years or more. Some of these bear evidence of Italian workmanship, or rather design, and they are all more or less interesting because care has been taken to give them low relief, and to avoid projecting portions which in so brittle a material as cast-iron could easily be broken off. In architectural work railings are the most usual form, and may be seen to great advantage in the railings round St. Paul's Cathedral, in London. Various districts in the south of England, formerly the black country, have claimed the honour of making these, but it seems to be admitted that they were made at Lamberhurst. Their design is excellent. It is not, however, necessary to go to the East End of London to see good examples of cast iron. The verandahs in Piccadilly and Mayfair are in many cases excellent, and are obviously in moulded or cast-iron, and have not been wrought. So far we have only dealt with large work, but the capabilities of the material are by no means exhausted; it may, in fact, be cast into delicate tracery, as is shown by the well-known Berlin castings, earrings, bracelets, and other personal ornaments, often of great beauty and minute in detail. They are now, however, difficult to obtain in this country, but specimens may be seen both at South Kensington Museum and at the Geological Museum in Jermyn Street.

There is still one other form in which iron is employed for ornament, and that is steel, which is intermediate in composition between wrought and cast-iron. Of this remarkable material very beautiful ornaments used to be made, such as buttons, sword handles and the like. Formerly, about the time of the French revolution, our country was famed for its steel ornaments, but this industry has long since passed away.

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## Books of the Week.

### THE LIFE OF DEAN STANLEY.\*

THIS is an interesting book about an interesting and conspicuous figure in the recent history of our times, which will, no doubt, be read, not only by those who loved and appreciated him, but also by those who bitterly resented his retaining an office in that church of which, in their opinion, he was a most unorthodox member.

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