

## THE DOOMED VALLEY.



POST OFFICE, LLANWDDYN.

(From a Photograph by Messrs. Robinson & Thompson, Liverpool.)

**I**N a secluded valley, far removed from the beaten track of tourists, situated in the charming district of Montgomeryshire, there exists, or rather there did exist a brief period ago, the picturesque and ancient village of Llanwddyn. At the moment of writing it is doomed to destruction, and the work of demolition has already commenced. Probably before these words appear in type the village will have disappeared, and the valley, in which it was once embosomed, will have been converted into a vast lake, and the future visitor to this now famous locality will view "the deep where grew the tree." The genius of modern engineering has fixed on this lovely vale in Montgomeryshire for the construction of the gigantic reservoir known as the Vyrnwy Waterworks, which will doubtless in the future effectually remove a long-felt and well-nigh intolerable want. For some years past the inhabitants of Liverpool, during the dry summer months, have been troubled with a door-to-door visitation of the emissaries of the powers that be, who have thrust upon them printed notices calling attention to the scarcity of the water supply, and requesting all good citizens, in order to avert the possible catastrophe of a water famine, to exercise the utmost prudence and economy in its use.

Previous, however, to entering on a brief description of the wonderful Vyrnwy water scheme of the Liverpool Corporation, let us—before it for ever passes from our ken—take a last glance at the doomed

village of Llanwddyn. It is, in the first place, a matter of no small difficulty to get there, even from Liverpool, travelling *via* Crewe, Whitchurch, and Oswestry, one has to put up with the leisurely speed of the Welsh railway, and the vexatious delay of frequent changes. The nearest station to the Vyrnwy works is Llanfyllin, and to accomplish this stage of the journey takes something like six hours. On arrival at the terminal station of Llanfyllin, the traveller must proceed on foot, or charter a trap to transport him, not without caution as to driving, over the dozen miles or so of rough, wild, and hilly country that lie between the station and



QUARRYING FOR STONE.

Llanwddyn. This ancient village, now in process of demolition, comprises a parish church, two chapels, two public-houses, the Powis Hotel, and about forty houses. Through the deep valley, in which the hamlet nestles, runs a road, centuries old, the highway between Llanfyllin and Bala. Like most places in North Wales, this village has been remarkable as the venerable haunt of tradition and romance. There is a legend concerning "Wddyn," or "Owddyn," the patron saint of Llanwddyn, that he was buried in a sequestered spot on the northern side of the valley, together with a vast treasure. The resting-place of this holy man is reverentially designated "Gively Owddyn," or "Wddyn's Bed." Sacrilegious attempts, it is reported, have been made to dig open the "Gively" or "Bed," but so far such efforts have only met with deserved failure, owing to the great thunder and lightning which at once break in on the would-be spoilers, causing them to beat an unceremonious retreat! There is yet another strange superstition concerning a ghost said to be confined in a bottle, which, singularly enough, caused apprehension and fear in the minds of

some of the men who were employed in the task of changing the course of the old river (near the present embankment) lest they should accidentally smash this bottle supposed to be lying there. This ghost, according to the story, used to disport himself on the roof of "Cynon Isaf," occasionally descending to worry the occupants of the house. When the trouble grew insupportable, a good and religious man was called in to endeavour to "lay" the unearthly visitant, and he proceeded to sing hymns and make prayers until the ghost, coming completely under his control, was finally put into a bottle, which the good man at once corked and threw into the river.

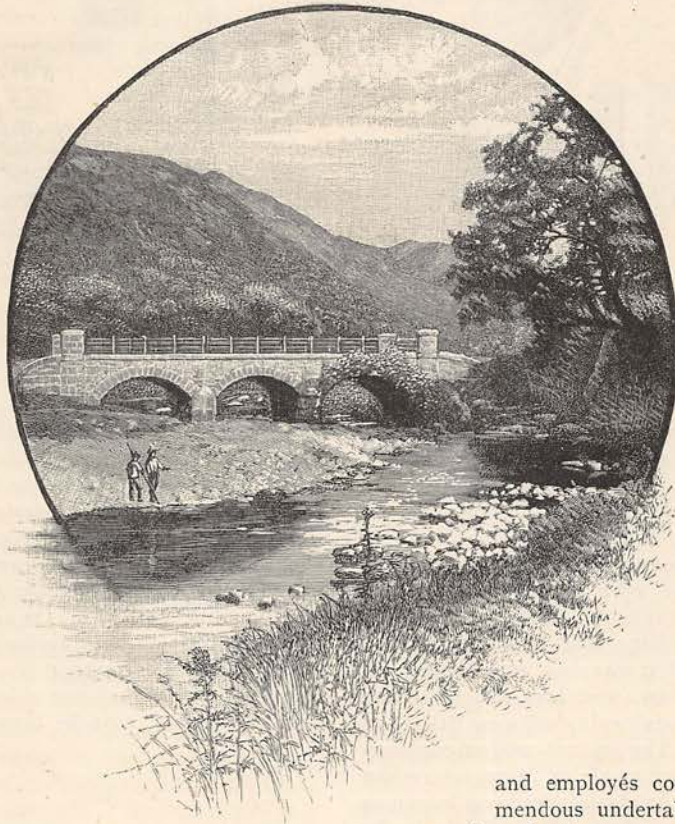
Leaving, however, such legendary lore to that limbo of oblivion which inevitably awaits it, we notice with interest the new road which the Corporation has constructed around the immense reservoir at an elevation above the high-water level varying from ten to thirty feet, and considerably over eleven miles in length, and which replaces the former highway running through the valley. A new church and vicarage have been built on the mountain-side in close proximity to the doomed village, and the bodies of the dead have been

carefully removed to their new resting-place. The hotel is also being erected on a suitable site, and convenient tenements are also being provided for the villagers who have for generations, from father to son, passed their lives in the same dwellings—now, alas! to be forever blotted out beneath a waste of water.

The Liverpool Corporation owns 13,000 acres of land surrounding the lake, and this area is dotted with the temporary offices and dwellings of the engineering staff

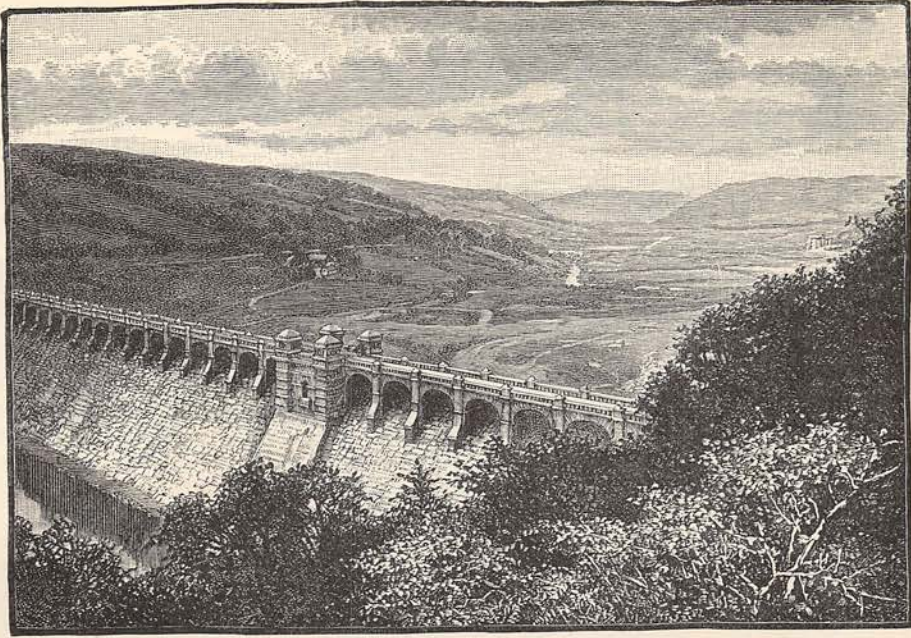
and employés connected with the tremendous undertaking. The lake itself consists of 1,165 acres, and the high-water level will be 825 feet above the level of the sea. The river Vyrnwy, which rises to the east of the Berwyn range of mountains, and flows through this valley, in which it is to be impounded, is one of the principal sources of the

Severn, and the Corporation are obliged by their Act of Parliament to compensate the Severn Commissioners for the loss of this important stream. It is satisfactory to know that the 10,000,000 gallons daily, with an additional 40,000,000 gallons during four days in each of the eight dry months of the year—March to October—which the Corporation have arranged to supply as "compensation" to the Commissioners, will in reality amount to three or four times the water previously derived from the Vyrnwy during the dry weather season. Even this immense contribution to the Severn Commissioners will not prove of an exhausting nature, as no less than 13,000,000 gallons a



A QUIET NOOK ON THE VYRNWY.

(From a Photograph by Messrs. Robinson & Thompson, Liverpool.)



THE VYRNWY EMBANKMENT.

(From a Photograph by Mr. J. Maclardy, Oswestry.)

day will, at the initial stage, be diverted for Liverpool, and it is computed that this daily supply, on the completion of the works, will be further augmented to something like 40,000,000 gallons, a quantity far in excess of the requirements even of a most extravagant consumption. Abandoning the customary protection of earthen embankments, and thereby avoiding the remotest possibility of any future catastrophe, the Corporation, regardless of the correspondingly heavy cost, have decided on the substitution of a dam of the most substantial and magnificent masonry. It may be mentioned that certain doubts having at one time been expressed as to the absolute solidity and resisting power of the masonry embankment in course of erection at the Vyrnwy Valley, the Corporation invited Sir Andrew Clarke and Mr. Russel Aitken, M.Inst.C.E., two most eminent experts, to reassure the public mind by making a most minute and searching investigation of the entire work. The superb masonry stood the test, and Sir Andrew remarked in his report that "nothing short of an earthquake could possibly disturb it."

The length of this vast reservoir when full will be something like five miles, and its greatest depth about 84 feet. It will in fact be much deeper and nearly as large as Loch Katrine, from which Glasgow is supplied. The Vyrnwy district, moreover, is famous for its large rainfall, and of the twenty rain gauges in operation on the drainage area for many years past, one to the east has registered 49'73 inches of rain in a year, while another to the west has recorded 118'51 inches in a similar period, or rather more than three and a half times as much as the average rainfall in Liverpool.

What perhaps most impresses the spectator is the massive structure of solid masonry, which, as if "piled by the hands of giants," blocks up the entire end of the valley, and connects the new roadways skirting each side. This embankment is 1,173 feet long, and the stone of which it is built is capable of resisting an average pressure of over 800 tons per square foot, and the mortar stands, after two years, 275 tons per square foot; whilst the concrete will resist, without cracking, something like 300 tons per square foot. The contents of this magnificent wall are about 260,000 cubic yards, and it stands about 144 feet above the lowest rock foundation. Some of the stones at the base weigh ten tons. There is a viaduct, with well-formed arches, constructed at the top, through which the water will escape, in the case of an overflow from the reservoir, to the basin below. Over the arches is the roadway from one side of the valley to the other, 22 feet wide, with footways on each side for pedestrians. There is a marble tablet on the wall which records the fact that the first stone was laid by the Earl of Powis, during the mayoralty of Sir W. B. Forwood, on July 14th, 1881. The names of Messrs. Thomas Hawksley and George Frederick Deacon, bracketed together as engineers, are also inscribed on this stone. We may say, in conclusion, that the water, when the lake is full, will be passed through a "straining tower," erected half-way up the valley, so as to partly cleanse it before being sent on to Liverpool, which is accomplished by means of an aqueduct of over 68 miles in length. Before reaching its final destination the water is further purified at Oswestry by means of filter-beds.

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