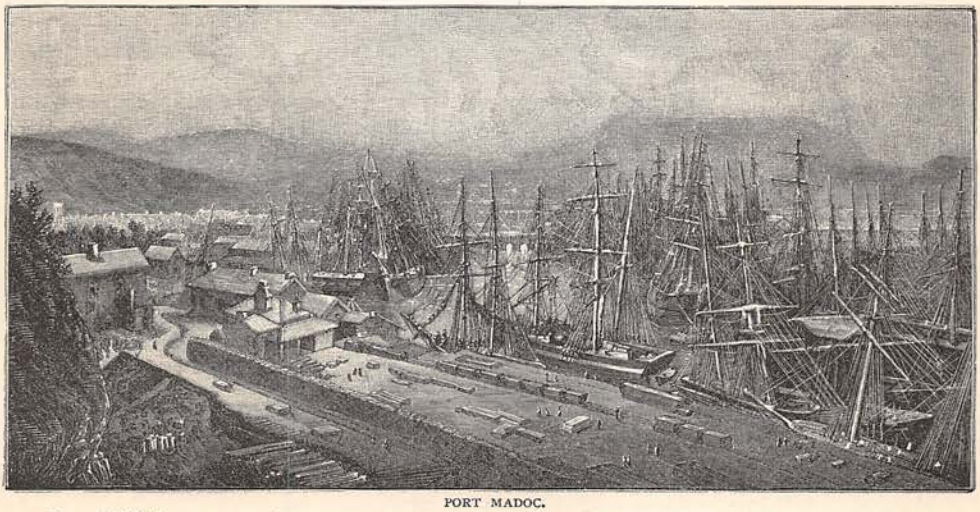
OVER THE NARROWEST NARROW GAUGE.

MADOC sailed out and discovered America, rather behind the Norsemen, but some hundreds of years before Columbus had an opportunity to do so. He penetrated to southern Missouri, as stated by Southey. There are Welshmen who believe that his descendants are still to be traced, speaking a purer Welsh than remains in the mother country.

By way of returning the compliment, an occasional American drops down and discovers the little port of North Wales from which Madoc sailed. More likely than not he is an engineer from Virginia, the Rio Grande, or Venezuela, come to see its principal curiosity for practical purposes at home. The European visitors comprise a formidable list of celebrities. The Duke of Sutherland came down in 1870, piloting an imperial Russian commission with *attachés* from all the continental powers and the East Indian government. "I wish I had known of it before," said he; "it would have saved me a million dollars in my estates."

This curiosity is the line, less than fourteen miles in length, from Port Madoc to the Festiniog slate district, known as the Festiniog Railway. It is nominally two feet wide, but really one foot eleven and a half inches, and enjoys the distinction of being both the oldest and the narrowest narrow gauge in the world. It was the war cry—and the basis, in fact—of the second of the violent modern controversies known as the battles of the gauges. The first of these, it will be remembered, was between the gauges of seven feet and upward, supported by the noted Isambard Kingdom Brunell, and the standard gauge of four feet eight and a half inches. Brunell proposed to attain unheard-of speed, retaining stability as well, with eleven-feet tracks, ten-feet driving-wheels for locomotives, and carriages hung between, instead of upon, the wheels. I have conversed with a pupil of his, now a distinguished supporter of the extremely opposite views, who shared his experiments, and rode with him at close to eighty miles an hour, after eight-feet driving-wheels, on his Great Western road. He mentions a violent and dangerous lateral jar in the suspended carriages as the cause of their abandonment. The Great Western itself, as late as 1874,—the Waterloo, it might be called, of the first struggle,—was relaid to the standard gauge, all comfort and profit in the use of it having been destroyed by the necessity of transhipment at points of contact with others.

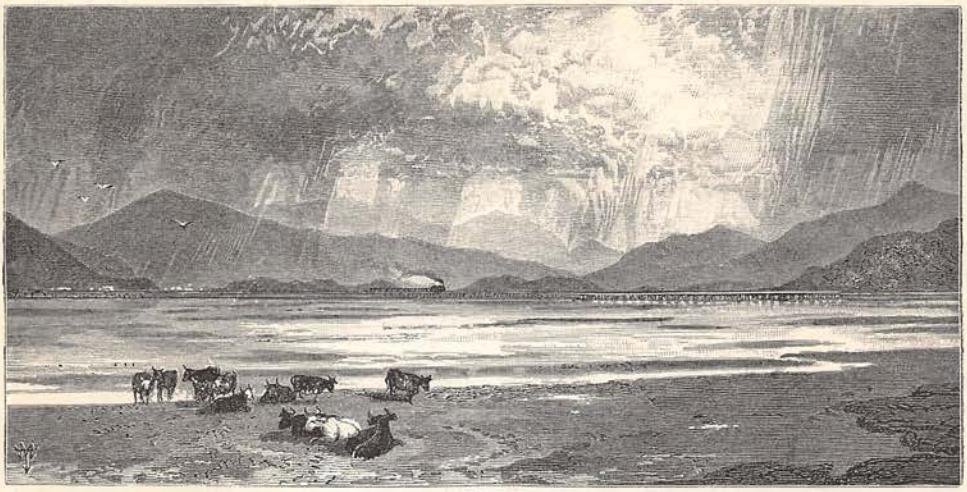
The second battle, the bombardments



PORT MADOC.

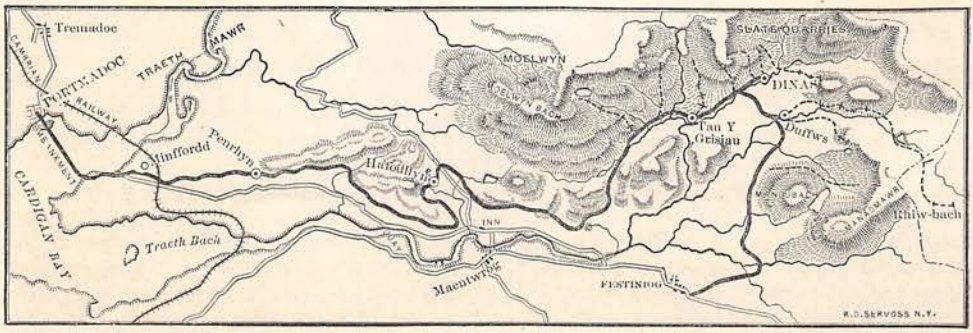
and hand-to-hand conflicts of which are still far from having come to an end, was begun by the favorable report of a government inspector on the opening of the Festiniog Railway to passengers in 1865. It was accelerated by other reports still more favorable on the placing on the track of a peculiarly constructed engine, the Fairlie, demanded by its increasing business in 1869. In the meantime a way of looking at railways from the point of view of their profits more than for striking feats had set in. They had not paid as was expected of them. The idea was broached and eagerly caught at, from the new information at hand, that they were extravagantly large, instead of stingily small, according to the reproach of Brunell.

The Festiniog Railway has lost its exclusive prominence as an example, and is no longer the Mecca it was, now that some twelve thousand miles of narrow gauges have been laid down in other parts of the world. Most of them are among ourselves, however, —there are estimated, eight thousand miles for the United States and Canada,—and the circumstance adds more than it detracts from the interest to the transatlantic visitor, who may promise himself entertainment in seeing what this fourteen miles of road, parent of twelve thousand, is actually like. It was the Christmas season of the last year when I came up to it, by roundabout ways, from the yellow gloom of London. The Severn was frozen for skating in Shropshire. In the Welsh country the oldest inhabitants were telling each other that it was a time quite remarkable in their experience.



FROM MADOCKS' EMBANKMENT.

Nothing remains of Prince Madoc. It is not even certain that it is his name Port Madoc bears, since it was founded early in the present century by one William Madocks, who may only have intended to commemorate himself. He expended half a million dollars in building an embankment a mile long across an estuary of the sea which formerly ran back nearly to the foot of Snowdon, and



THE FESTINIOG RAILWAY. (SHOWN BY THE BROAD BLACK LINE.)

thus redeemed seven thousand acres of land, which he left, a fine property, to his creditors, having ruined himself in the undertaking. The Snowdon range is the center of the district. It is not stupendous, as mountains go, but the stern dark color and the volcanic nature of the upheaval give an impressiveness beyond the size.

Port Madoc is a town of four thousand inhabitants. It has a notably staid and respectable air. There is a long principal street, of heavy two-story stone houses, broken by an ambitious market and a station for the district police. The trading in the neat small shops is entirely in the hands of Evanses, Lloyds, Griffiths, Owen and John Joneses. The houses climb a steep hill on one hand, and stretch out to the flat on the other. There are monotonous rows of them, each with a pretty bay-window, not unlike the dwellings of Washington clerks, except that they are not of brick. No sounds of revelry come out of the Quarrymen's Arms. "Temperance" signs prevail, and chapels are so numerous as to be a special feature. They are chiefly of the dissenting sects, the Church of England having never recovered the hold upon the people which it early lost by a neglect of the national language.

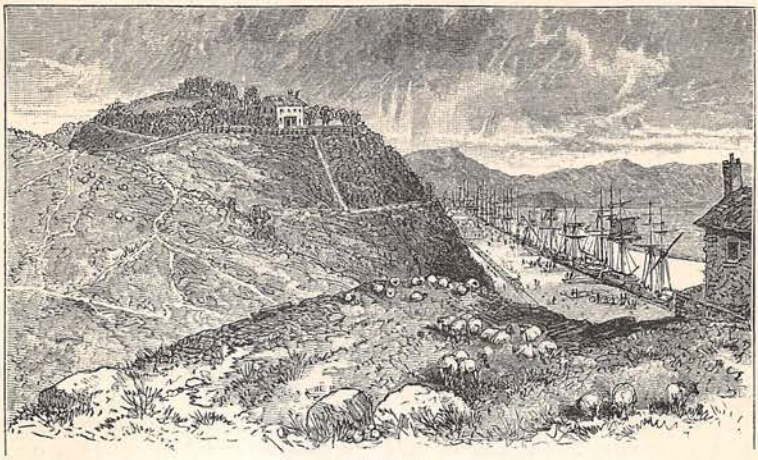
There is an equal seriousness in the port, among the neatly piled palisades of slates awaiting removal. The waterside inns are temperance inns, too. One would say they were kept by the deacons of the chapels. A jolly tar is never seen by any chance staggering under other than his legitimate burdens. The slate wagons, numerously scattered in the yards, are small vans of iron lattice work, standing but eighteen inches above the track, carrying a couple of tons, and easily pushed about by hand. The line is seven hundred feet higher at one end than at the other, having an average gradient of 1 in 92, and a maximum of 1 in 69, and they come down mainly by gravity—by their own impudence, I have heard it called.

The shipping is of sufficient extent to make an impressive tangle of mast. From an elevated point one would say that buildings, ships, quays, and the black little island hills in William Madocks' redeemed land—Madoc is said to have sailed from one of them—had drifted in together, and were held in an eddy, under a protecting angle of the shore.

SLATE BOATS AT LOW WATER.

The first and only level mile of the railroad crosses Madocks' embankment. There is a vast, bare stretch of sands from it when the tide is out, with a real charm in its character of simple desolation. From another point the black slate boats lie stranded, with Mount Snowdon showing through their rigging. When the storms beat in, lines of Ossian come naturally to one, on these high northern coasts so near to where they had their origin. The heroes rise like the break of a blue rolling wave, and the ghost of Crugal retires with the darkened moon in the whistling blast.

The Festiniog road was founded by the



BRON-Y-GARTH.

Spooner family, and the third generation is now taking part in the management of it. Their attractive, ivy-clad homestead, Bron-y-garth, hangs on a picturesque hill above it, where all its goings-out and comings-in are under the eye. It is a family of quite the traditional British hardihood, if the accounts be true. Its list of accidents and hair-breadth 'scapes is too long to set down here; but the small road, innocent enough for others and without a case of fatal damage in its annals, has certainly subjected its responsible heads to severe proofs. The senior member is a hale, dignified gentleman of sixty. His son, a young man of energetic and companionable traits, my guide in the subsequent explorations, assures me that he is not beyond the ability to turn "cart-wheels" yet with the agility of youth.

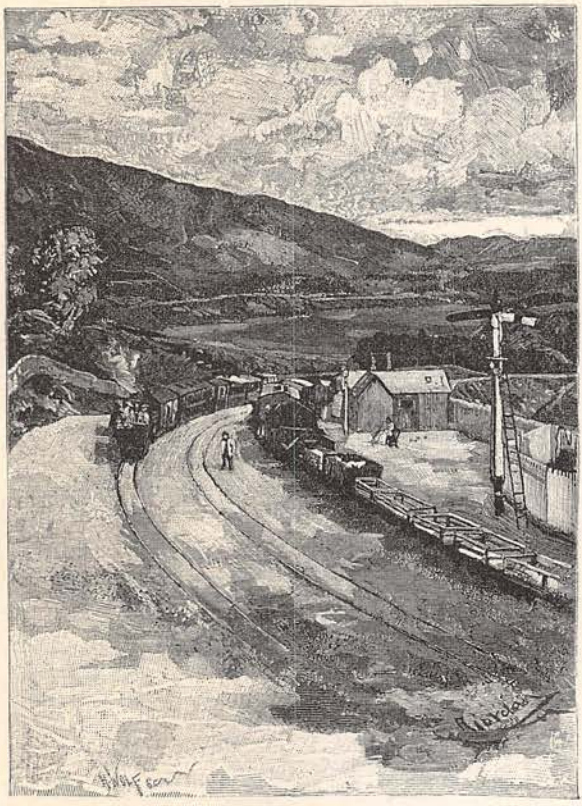
From the Spooners I heard the story of the road at first hand, with something of the romance of Madocks and the antiquities of the neighborhood. James Spooner came into the country from Yorkshire on a pleasure excursion. He hunted rabbits over most of the site where the town and docks now are. There he fell in with ordnance surveyors, was pleased with the business, became an engineer, and returned to assist Mr. Madocks in his projects. The slate quarries in the mountains were being tediously and expensively served by boats down the river Dwyryd (Doorid). He secured in 1832 the laying of a horse tram-road to them. There was a brilliancy in these improvements at that time that caused people in the early part of the century to congratulate themselves on their progress and look forward to extraordinary things. One horse on the rails could do the work of forty.

James Spooner advanced to the idea of steam on his track, but was unable to realize it, and left it as a legacy to his son. The difficulty was to find locomotives that could be guaranteed for the peculiar conditions of narrowness and curvature. The son succeeded in carrying out the bold conception in 1863, putting on tank engines, of the type of the "Little Giant" and "Welsh Pony." The shoulder easily overtops these small locomotives as they stand on the track. Their driving-wheels are but two feet in diameter. Their cylinders are a trifle over eight inches, with a twelve-inch stroke. Instead of the thirty, forty-five, and even seventy tons of standard gauge locomotives, they weigh, the first seven and a half, the other ten at most.

No change was made in the track, except to replace the original sixteen with thirty-pound rails. A two-foot gauge it had been, winding around all the convolutions of the hills, and a two-foot gauge it remained. After a couple of years more development of trade and population, there was a crying demand that it should carry passengers. This was against the law. The inspector who was to give it celebrity came up, saw what it could do, and made his report. The permit for passengers was secured, but with a restriction of speed to twelve miles an hour.

As business grew, continually increasing loads were piled on carriages and capacities were thus developed that had not been dreamed of. Toward 1870 traffic had so outgrown the limited provision, that it seemed necessary to double the track. As a possible alternative, experiments were first tried with the Fairlie locomotive. It proved

to furnish such a satisfactory increase of power that the idea was abandoned and has never since been renewed. The "Little Giant's" prestige was blotted out by a twenty-ton "Little Wonder." The next step demanded in this gradual progress upward was a stronger support for the new crushing weights. The weight of the rails was made nearly forty-nine pounds to the yard, and even these are now being replaced with steel of fifty. The restriction as to speed was withdrawn, the employés were handsomely uniformed, and the whole became and remains as like as possible in miniature to the ordinary European railway.



TAN-Y-BWLCH STATION.

The small wooden station at the end of Madocks' embankment has hardly more than the look of a sentry-box. One rather expects to find the tickets diminished in proportion, and the company's servants stunted in their growth. But the former are of the usual size, and porters, guards, and brakemen bustle about with as important an air as if they had never been out of the service of Isambard Kingdom Brunell.

All the steps of the historical development are read in the varied patterns of the rolling stock. The earliest is the quarrymen's car. It is a mere rude box, eight feet by six, by four and a half, perhaps, painted dark red, and provided with two openings for doors. The next period is typified by a car for six persons, with the usual door and flanking windows in each side. It has a palanquin or sedan-chair effect. It might be considered the germ or a single cell of the foreign carriage, which consists of a number of compartments united in the same structure for the different classes. There are others of two cells. There is a variety with longitudinal seats. Others again are open, with stout leather aprons for protection from the weather.

The latest model is a handsomely finished car, with the peculiarity of being very much larger instead of smaller than its broad gauge contemporaries. It is thirty-seven feet long, has seven compartments, and carries fifty persons. The best Cambrian or North-western carriage on the journey hither had but four, with room for thirty-two. This latest Festiniog car rests on two pivoted trucks or "bogies" of four wheels each, while those of the regular foreign pattern run stiffly on four fixed single wheels, after the manner of our street-cars. There is a disposition to make a good deal of the bogies as a striking original feature, though from the first days of railroading they have been part of the American system to the entire exclusion of the other. A few are lately being introduced on the Midland and South-western railways of England.

Among the rest, a peculiar conveyance like the section of a boat on wheels, inscribed: *Ni l'un ni l'autre*, known as "the Boat," is for the use of the manager and his family.

The goods wagons weigh eighteen hundred pounds, and carry two and a half tons. A pair of timber wagons coupled, weighing thirteen hundred each, carries nine tons. For stability, all the floors are kept as near the ground as possible. In the passenger cars,—whose wheels run inside, and for oiling are reached from doors in the seats,—

they are but a single step above the track, a feature which allows platforms to be dispensed with at the stations.

The transportation rates are quite tolerable: for a passenger, slightly less than three and a half cents a mile, first class; two and a tenth cents, second class; for a ton of goods, five and a half cents. On field days, before assembled magnates, the "Welsh Pony" has drawn up trains of nearly seventy-four tons, and the "Little Wonder" of two hundred and six. On any day the former is to be seen going out on its ordinary work with between fifty and sixty tons, and the latter with nearly a hundred and thirty.

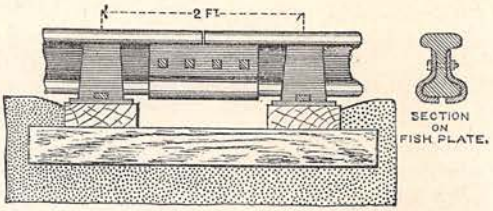
Enthusiastic observers of the performances of the Fairlie engine here have staked their reputation on being able with them to run the whole traffic of the London and North-western road on a gauge not to exceed two feet and a half. Fairlie, the inventor, an indefatigable controversialist and undoubtedly the most strenuous narrow gauge advocate in the world, declares that without it, narrow gauge, *per se*, is not worth a straw. Singularly enough, it is very moderately used on the American narrow gauges, which content themselves with the "Consolidation," "Mogul," and more ordinary patterns.

As the slate wagons go up empty and come down with so little effort, the trains are often of great length. They are frequently a thousand feet, and sometimes a full quarter of a mile. The interminable line of small units, as flexibly jointed as a trailing chain, moves around the curved route at from twelve to fifteen miles an hour. It is sometimes on three or four curves at once.

Passenger trains have been run as fast as thirty and even forty miles an hour. The traffic for the year ending with June, 1878, reached 233,000 passengers, and 165,000 tons of freight, returning an income of $133,000. Its rate of traffic even six years ago was fifteen times greater than that of the three existing Indian railways, and was made an argument to show that for the future they should be narrow gauge.

The track over which this is done demands particular attention before any inferences can be drawn for use elsewhere. Here is something, too, very different from what is said abroad to be the American plan of "building cheap and running dear." It is of this section:

The rail, as has been said, is of nearly forty-nine pounds weight, and will shortly be fifty of steel. The American narrow gauge rail is from thirty to thirty-five pounds, and that of our standard gauge, fifty-six. The larch cross-sleepers, but two feet apart at the joints, are framed to longitudinal sills as shown. The fish-plate grips the lower flange, as well as the web of the rail. The whole way is carefully drained by depressions under the track, at regular intervals. Examination shows the ballast to be without a crack of subsidence or shrinkage. One is not in the least inclined to dispute the account which has pronounced it "a perfect road-bed."



CONSTRUCTION OF TRACK AND ROAD-BED.

II.

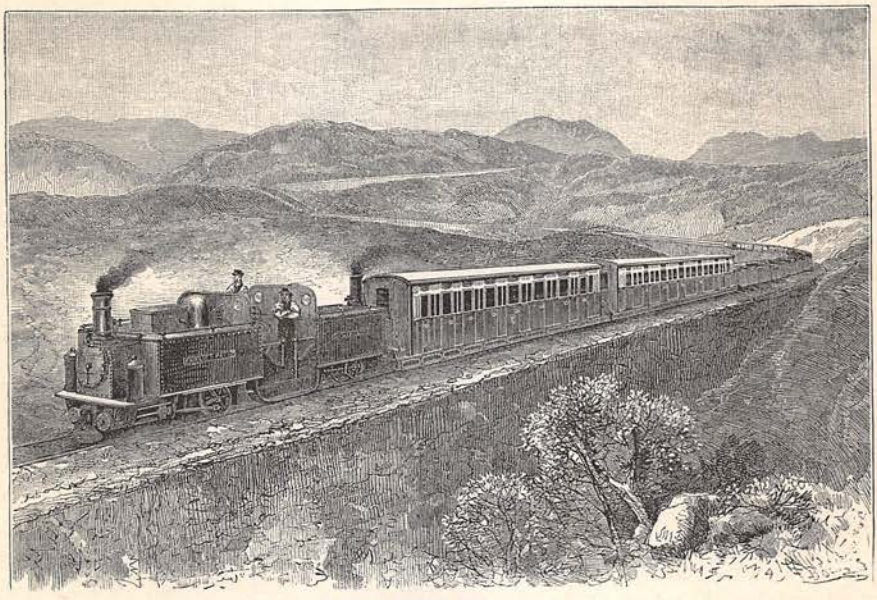
We had agreed, in order to witness one of the more unusual phases of the life of the road, to go by the quarrymen's train. It starts only once a week, at six o'clock Monday morning. In part through lack of accommodations above, and partly to have access, in case of need, to work elsewhere,

MONDAY MORNING PASSENGERS.

large numbers of the men keep their homes and families below, and return to them on Saturday afternoons. It was naturally much before daylight, at this hour of a mid-winter morning. Snow-flakes fell thickly at intervals. The quarrymen came trooping out of the silent streets with their kits of supplies in canvas bags knotted across their shoulders. They stamped the snow off their heavy boots in the station, and talked softly together in their strange tongue.

Among them—the one touch of brighter sentiment in the scene—a rugged man, stiff in the joints from toil, had beside him a pretty child, a girl of ten, who carried in a satchel a part of his provisions. She was shabbily dressed, as became a quarryman's daughter; the small face was rosy with the storm, and the unkempt blonde hair had a genuine interest even apart from her circumstances. His only reply to compliments was the common *dim Saesnach* (no English) impassively spoken.

The engine at the head of the long train of red-painted boxes slipped on the icy tracks and did not easily get under way. While it fumed and shrieked in the rage of ineffectual efforts, telegrams came down the line countermanding the train. It would be useless to proceed till the way was cleared above. The next in regular order was also stopped. In the middle of the forenoon, a single engine drew up in charge of Williams, head of the machine-shops, and



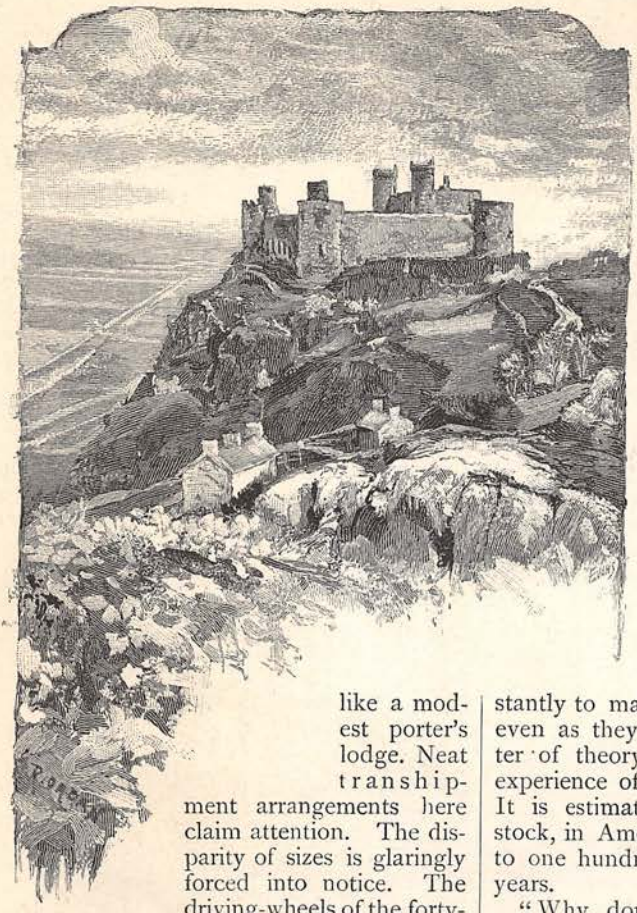
FAIRLIE ENGINE AND TRAIN.

the most trusted mechanic on the line. We jumped up beside him and found ourselves embarked for the journey on the Fairlie engine, "Little Wonder," which justified the accounts of the easy gliding motion and absence of oscillation attributed to it, as we flew out over the embankment.

This engine has an odd, aggressive-looking build. It is really two locomotives framed together. With double boilers, smoke-stacks and pairs of cylinders, ready to start either way, one end is as much the front as the other. It seems to defy gods and men to catch it napping. It bears lightly on the track by having all wheels driving-wheels, and the weight distributed equally on them. The bogie or pivoted truck is here again a leading feature. The rolling gear is simply one of these at each end. Its difference from two locomotives coupled to work together is in this, that, in turning a curve, the stiff frame acts as the chord of the arc. The leading bogie is securely held to the track by the other.

The first stoppage is at the shops at the other end of the embankment. They are of some size, and well furnished with what is necessary for building and repairs. Ingenious American screw-cutters are among the tools. One is called upon to note that the smallness of the parts to be dealt with, and of lifting tackle and apparatus in general, is one of the economies of the plan. At the shops we take up a burly individual walking in a leisurely way on the track. This is the "strongest man on the line." "It may be convenient to have him along farther up," says the young superintendent, as the Samson stows himself comfortably, and lights his pipe, on the buffer beam.

At Minffordd, the junction with the Cambrian line, is a stone station,—the only one,—



HARLECH CASTLE.

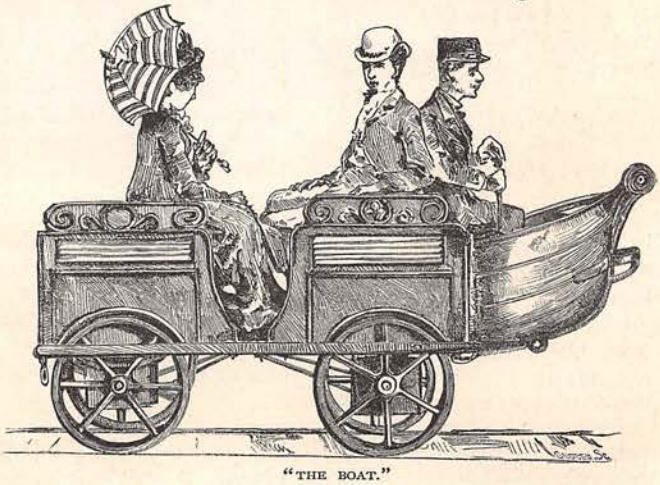
like a modest porter's lodge. Neat transhipment arrangements here claim attention. The disparity of sizes is glaringly forced into notice. The driving-wheels of the forty-ton Cambrian locomotive are not far short of the top of the smoke-stack of the other. Its goods truck is three times the length and twice the height of the smaller one. The two are brought side by side to a level, the smaller trucks being run upon raised platforms. Mr. Spooner estimates the damage of his break of gauge at not more than the threepence to sixpence a ton charged on the 25,000 tons interchanged at this point.

There would be a much greater disparity of sizes were there parallel systems of construction. The broad gauge takes its loads more like an elephant its castle, while the widely overhanging narrow gauge is like a donkey with its paniers. The freight cars of the latter are more than twice, and its passenger coaches more than three times, the width of its track.

"With a proportion like ours," says my companion and guide, "the standard gauge carriages would be fifteen feet wide instead of eight or nine. They cannot adopt it. It would crush their tracks in no time. If that were not reason enough, it would destroy the necessary mid-space between tracks and require the alteration of all tunnels and standing fixtures, adapted to the present width."

There is another reason, it occurs to one to reply,—the added liability to destruction of the cars themselves. The tendency is constantly to make them stronger and heavier, even as they now are. It is not a matter of theory, but of policy, derived from experience of the customary wear and tear. It is estimated that the weight of rolling stock, in America, has increased from fifty to one hundred per cent. in the last twenty years.

"Why don't they take a gauge where they can get all out of themselves they are worth, then?" he says, being naturally an enthusiast for the system whose working he has witnessed to such advantage.



"THE BOAT."

The delicate question of the ratio of dead to paying weight is involved in this, and indeed the whole perplexed question. Our talk becomes, in the intervals of the failure of special objects of attention along the line, a sort of narrow gauge symposium.

There surely are not many controversies in which two positions oppose each other with such an apparent completeness. If more cuttings and tunnels and heavier rolling stock are adduced against the broad gauge, more miles of track, sheds and sidings, longer trains more difficult to pull, and diminished speed are retorted on the narrow. Mr. G. B. Bruce, in the noted deliberations for the benefit of the East Indies, estimates the saving by use of the narrow at £200 per mile, General Strachey at £2,000, while Mr. R. Price Williams (all are authorities of the highest consideration) believes it will be an actual extra expense of £300 per mile. In Norway a broad gauge road is being turned into a narrow because it does not pay. In Sweden a narrow is being changed into a broad for the same reason. The evidence in the vital matter of break of gauge has equal range. It varies from the petition of the people of South Wales to the Great-western, setting forth that break of gauge is a curse, and prohibitory of their principal traffic, to the opinion of a superintendent of the Erie road, who declares it a positive benefit, as saving the damage to empty returned cars.

The solution is not facilitated as much as might be thought by the increase of examples. The narrow gauges are still on their trial. It is certain that any railroad is better than none, but perhaps time enough has not elapsed for the oldest of them to allow it to be determined that another than the policy pursued might not have been better. The cynical broad gauge advocate is not afraid to account for their late multiplication by asserting that speculators obtain money for their projects by the specious new arguments which could not be got in the regular way. He refuses credence to the brilliant financial showings of roads whose bonds are still in the market.

Away from the bustle of its business at the stations, the small single track assumes its essential character. Let it be imagined that it is one-third narrower than the miniature railway at the Centennial, narrower than the track-ways on which casks are rolled in breweries. The two dark lines are drawn on the snow between low walls, like the trace of a single sled down a country lane. Larch, oak and yew are scattered in the estates, and sometimes lovely holly trees close by the track relieve their scarlet berries against their glossy dark leaves.

THE "PRINCESS" IN DIFFICULTIES.

A wide view opens from the top of Penrhyn point. Backward it reaches to two ancient castles, Harlech and Criccieth, flanking the stretch of Cardigan bay. Any Welsh pianist will play you a stirring martial air—the "March of the Men of Harlech"—from the history of the farther one, whose ruin is particularly striking. Forward it embraces the valley whose windings the railway follows. It has vestiges of a charming rural beauty even now, when the climbing trees are but a gray and brownish fringe, and the river down in the bottom

is as black and metallic as a strip of polished iron.

The road is scarped into the hill-sides, and follows every convolution of them like a bridle-path. It has been compared to a random juxtaposition of letters S. A long train appears to be playing the boy's game of "snap the whip." There are places from which it moves to all points of the compass at once. The winding plan, besides saving cuttings, results in easy gradients. But there are obstacles which the most circumlocutory of narrow gauges cannot dodge. If they be ravines it crosses them on dry stone masonry embankments. One

"THE STRONGEST MAN ON THE LINE."

is sixty feet high, and from its slenderness —it is but ten feet wide at the top—it seems more. If they be spurs of the mountain, it has of course to cut through them. It cuts so narrowly that the person must be carefully kept within the engine cab for fear of collision. The margin is but a few inches. To enter the eight-feet tunnels is like plunging into a cellar door. There are two of these, one of 73, the other of 60 yards, neither lined. A dismal crackling is heard as we traverse the large one; it seems that fragments of the roof are falling; on coming to the light they prove to be icicles.

The sharpest of the interminable curves is of but 116 feet radius. It turns a headland known as Tyler's Cutting. To dash around it at speed with snow in one's face, and the engine careening over on account of the super-elevation of three inches in the outer rail, is a highly spirited experience.

At Tan-y-gresiau one of the smaller pattern of engines, the "Princess," was off the track. The snow was not of the depth we had been led to expect, nowhere more than two or three inches; but the wet clinging quality of it, and the deficiency of the line in other snow-plows than old brooms tied to the engine's head, made it embarrassing. The "Princess's" head was being lifted with small jack-screws, while a number of men mounted on the side, with their backs braced against the boiler, pushed against the wall, just as one might try to help a road wagon out of a rut. Here was an opening for the Strongest Man on the Line. I observed that the method of employing his herculean powers which seemed to him the most telling was the holding of an umbrella over the artist while a hasty sketch of the scene was made.

The accident gave rise to reminiscences, when we were again under way. None of them were tragic. Williams recollected a case of collision in which a horse in one train was pitched exactly into the place of one in the other, while the latter was thrown many yards into a field.

A slight whistle which must have meant incredulity proceeded from somewhere on the engine.

"It's thrue for me as I'm a living Welshman," said Williams.

Near the upper villages children were running in procession, tracing letters in the snow. The people who came to the doors to look out at us were of a well-conditioned aspect. The dwellings are of coarse masonry but well glazed, the wood-work painted, sometimes a muslin curtain and often a geranium pot in the windows.

There is no brilliancy about the slate, the sober treasure of the region, but it keeps times tolerably good and the population well at home with sufficient employment. Still there are adventurous spirits, and young people from here, as elsewhere, make their way up to London. They do well in trade in virtue of a natural thrift. They learn English without the unpleasant cockney accent. The best people, indeed, speak it quite in the best American manner.

On the other hand, possibly sixty per cent.

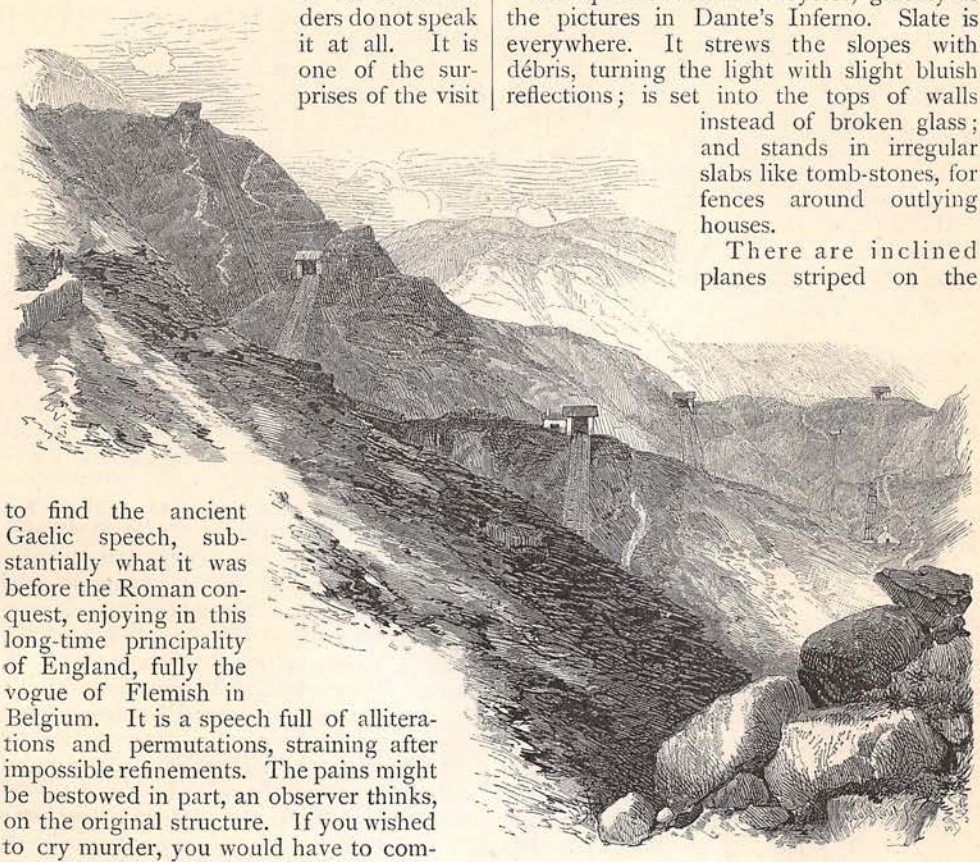
of the lower orders do not speak it at all. It is one of the surprises of the visit to find the ancient Gaelic speech, substantially what it was before the Roman conquest, enjoying in this long-time principality of England, fully the vogue of Flemish in Belgium. It is a speech full of alliterations and permutations, straining after impossible refinements. The pains might be bestowed in part, an observer thinks, on the original structure. If you wished to cry murder, you would have to compass *Hai wchw!* Avaunt is *ffwrd*, which has the air of an explosion after holding the breath to the point of suffocation. It is a language in which the too much offsets the too little. There is no present tense, and no distinction of sex by genders. On the other hand there are four different ways of saying *I*, graduated according to emphasis. One of them is impossible in English, but the others may be translated: I, I also, I also indeed. Some peculiarities of the resulting dialect are thus exhibited in a late comic paper:

OWEN—That will pe the coot whuskey, David.
DAVID—She is the pest I never tasted.
OWEN—So did I too, also, never no more.

The heart of the slate country is treeless and desolate, like the top of an Alpine pass. The imaginative discover fantastic resemblances in the jagged mountain outlines. From a point on the road to Snowdon the profile of Wellington is thought to be made out, and from another, the head of Pitt.

The quarries are vast abysses, gloomy as the pictures in Dante's Inferno. Slate is everywhere. It strews the slopes with débris, turning the light with slight bluish reflections; is set into the tops of walls instead of broken glass; and stands in irregular slabs like tomb-stones, for fences around outlying houses.

There are inclined planes striped on the slopes, rising to successive levels. At the top of each a small "drum-house" contains the drum, by means of which with its wire rope, the full slate wagons are lowered, pulling up the empty ones. Black water-wheels are seen turning slate-trimming machinery.



IN THE SLATE COUNTRY.

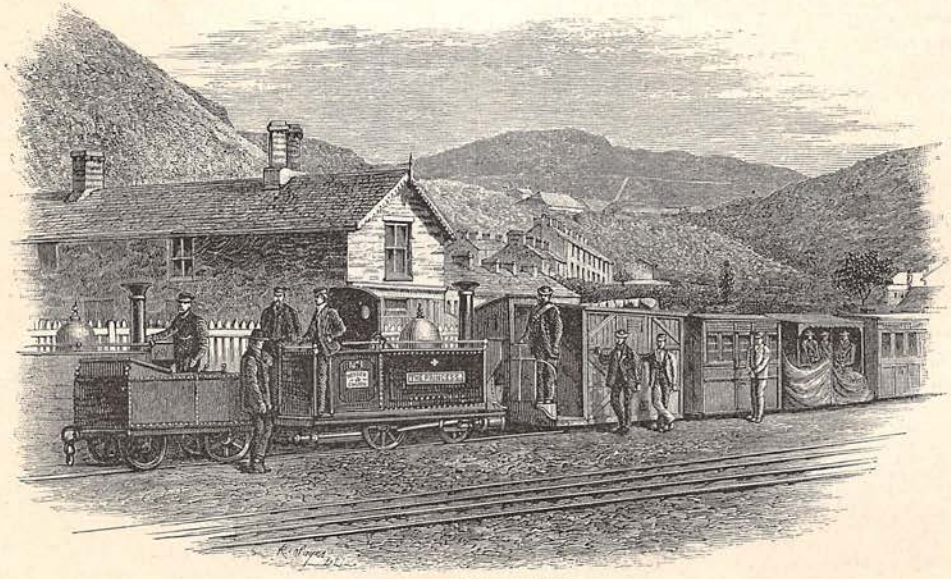
The homes of the quarrymen are for the most part in barrack-like structures on the heights. They are little given to revelry, and there is little in the villages to attract them down if they were. We passed the yellow van of a traveling show at one point, lying deserted in a field, melancholy as a grasshopper in winter. Both horses and proprietor had turned out to work in the quarries. Tired with the labors of the day in the shafts, or in the shops where the slates are split on the bare damp ground, they sit around the fire, telling one another stories (possibly of the mysterious knockers, which haunt mines and point out the way to hidden treasures), and await the coming of the welcome Saturday afternoon.

Dinas, the upper terminus of the road, is an inconsiderable hamlet. The real metropolis is Duffws (Duffoos), a place of perhaps three thousand people. Festiniog, considerably smaller, is four miles further, but is reached by a branch which follows the hills on the other side, back toward Port Madoc. It has a charming view over the vale of Maentwrog, besides Roman remains and picturesque waterfalls of its own in the Cynfael. A hundred years ago, when it was more secluded, a traveling lord, who is there much quoted, praised its salubrity, and said that with the woman he loved, the friend of his heart, and a good library he could spend a life-time there. It is not extreme praise, since it would not be difficult to get on tolerably under the circumstances in many another place as well; and it deserves more. In all the settlements new buildings are going up; there are comfortable goods in the shops; the same characteristics prevail as below, including the frequent chapels.

The down journey is made with only steam enough to keep the cylinders in good condition. There is less novelty now, and it is a time for summing up. The small railroad pays, it is gratifying to know, a dividend of seven per cent. on its present, and of nearly seventeen on its original, capital, which has been increased by earnings from £36,000 to £86,000. It meets all the demands upon it without trains before eight or after six o'clock, or on Sundays. The propriety of this statement as a proof of extraordinary capacities in small widths of track, is unquestionable.

Still—so one's reflections run, if they do not appear so openly in the symposium—it has the regulation of its own tolls, and is without a particle of competition. It runs safely with light carriages, but on a magnificently expensive road-bed, without pressing necessity for speed, and without the battering of its property by a system of exchanges. It has sharp curves, but not a monopoly of them, and not the sharpest, while its shortest radius is 116 feet. The New York elevated roads, of standard gauge, are running their innumerable daily trains over four curves of ninety feet radius and one even of forty-five.

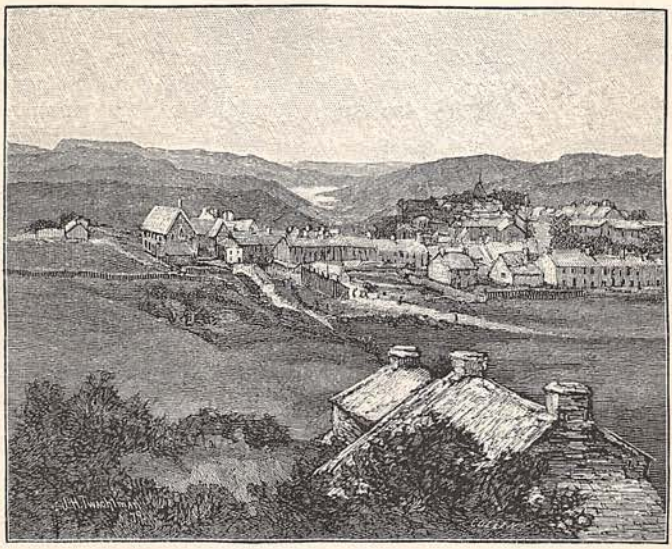
Profitable as it is, too, the last three semi-annual reports show a ratio of from sixty-three to sixty-nine per cent. of receipts devoted to working expenses, while forty-eight is looked upon as fairly liberal for English roads. There seems almost margin enough in the large returns, too, to have paid for a full gauge road. It has never been needed, to be sure; but at the present time it might be rather useful to have. The competition from roads of the standard gauge, which must be expected sooner or later by every narrow gauge road not placed in the most exceptional circumstances, appears at hand. Both the Northwestern and the Great Western are coming in with branches to its upper terminus. It



AT THE UPPER TERMINUS.

looks as though the slates must turn and go the other way in good part, leaving the neat platforms and tipping tables, at Minfordd at least, with little to do.

On the whole, it is difficult to accept it as an argument for anything but itself. A novel idea in railroading has extreme difficulties in its way. If it cannot subvert the existing system or isolate itself forever, it must suffer at every point of contact. In the United States, it is possible that the narrow gauge owes its propagation to the wide-spread railroad embarrassments since the panic of 1873, more than to the convincing nature of its proofs. But were its theory of benefits much more undisputed than it is, the tendency of the information is to show that any honest difference of cost by reason of gauge was so overtopped by vicious methods of financiering and bad judgment in the projection of the embarrassed roads, as to be an insignificant feature of their troubles.



FESTINIOG.

We came down to find the Christmas preparations advancing apace. A curate and ladies were decorating a pretty parish church, passing in and out under a gate-way covered with armorial bearings. A festivity known as a "tea-eating" was announced from one of the chapels. The band of the local volunteer rifle company played "waits" in the evening in the principal quarters of the town. The parlor of the inn was festooned with holly and starred with oranges. The mistletoe, with its charming, waxen white berries hung in the center, and the bar-maid wore a conscious air. For Christmas day itself there was a local *eisteddfodd*, or bardic contention. There are bards still, after the rights and institutes of the bards of Britain, duly initiated in the *gorsedd*, with its mystic circle of stones and drawn sword.

They are quiet little men, as I saw them in their shops, far enough from the rhymers who stirred the blood of Llewellyn and Owen Glendower. One William Roberts, styled Gwyllym Eryri, or William of Snowdon, a sail-maker by trade and thrice the recipient of the chief honors at the national *eisteddfodds*, was good enough to furnish me with an original ode, or *awdl*, of his own, on the Festiniog Railway. It is probable that the merit of these compositions consists considerably in the versification, which is of a difficult kind. The consonants in the first half of the line must be repeated in the second, while the vowels are appropriately varied.

"Thou art," says William of Snowdon, addressing the Narrowest Narrow Gauge, "a monument to man's ingenuity. But more wonderful than man's masterpieces are seen around us, the towering mountains, the river and the valley. To the courteous director, Spooner, also, deserved praise is hereby offered. Without doubt he has been the occasion of great benefit to this our native town."