

OF SOME RAILROAD ACCIDENTS.

THE assertion has a strange, at first, indeed, almost a harsh and brutal sound, and yet it is unquestionably true, that, so far as the general welfare, the common good of mankind is concerned, few lives are so profitably expended as those of the unfortunate victims of railroad accidents. This, it is true, may not be saying much; for it is a melancholy fact that there are few things of which either nature or man is, as a rule, more lavish than human life; provided always that the methods used in extinguishing it are customary and not unduly obtrusive on the sight and nerves. As a necessary consequence of this wastefulness, it follows also that the results which flow from the extinguishment of the individual life are, as a rule, pitifully small. Any person curious to satisfy himself as to the truth of either or both of these propositions can do so easily enough by visiting those frequent haunts in which poverty and typhoid lurk in company; or yet more easily by a careful study of the weekly bills of mortality as they are issued by the authorities of any great city. Indeed, compared with the massive battalions daily sacrificed in the perpetual conflict which mankind seems forever doomed to wage against intemperance, bad sewerage, and worse ventilation, the victims of regular warfare by sea and land count as but single spies. The worst of it is, too, that if the blood of the martyrs is in these cases at all the seed of the church, it is a seed terribly slow of germination. Each step in the slow progress is a human Golgotha.

It is far otherwise with the victims of railroad disasters; they, at least, do not lose their lives without great and immediate compensating benefits to mankind. After each new railroad "horror," as it is called, the whole world travels with an appreciably increased degree of safety. The causes which led to it are anxiously investigated by ingenious men, new appliances are invented,

new precautions are imposed, a greater and more watchful care is inculcated. And hence it has resulted that each year, and in obvious consequence of each fresh catastrophe, travel by rail has become safer and safer, until it has been said, and with no inconsiderable degree of truth too, that the very safest place into which a man can put himself is the inside of a first-class railroad carriage on a train in full motion.

The study of railroad horrors is, therefore, the furthest possible from being a useless one, and a record of them is hardly less instructive than interesting. If carried too far it is apt, as matter for light reading, to become somewhat monotonous; though, about railroad accidents as about everything else, there is none the less an almost endless variety. Even in the forms of sudden death on the rail, nature seems to take a grim delight in an infinitude of surprises.

With a true dramatic propriety, the ghastly record, which has since grown so long, begins with the opening of the first railroad, literally on the very morning which finally ushered the great system into existence as a successfully accomplished fact, the eventful 15th of September, 1830.

DEATH OF MR. HUSKISSON.

That day had opened upon Liverpool bright and warm; the city was thronged with strangers, while gay and eager crowds lined the new thoroughfare on either side throughout its entire length, from the Mount Olives cut to Manchester. The arrangements were very perfect, and, during its earlier hours, the great gala occasion seemed likely to pass away unmarred by any mishap. A brilliant party, consisting of the directors of the new enterprise and their invited guests, were to pass over the road from Liverpool to Manchester, dine at the latter place, and return to Liverpool in the

afternoon. Their number was large and they filled eight trains of carriages, drawn by as many locomotives. The Duke of Wellington, then prime minister, was the most prominent personage there, and he with his party occupied the state cars, which were drawn by the locomotive *Northumbrian*, upon which George Stephenson himself that day officiated as engineer. In a car of one of the succeeding trains was Mr. William Huskisson, then a member of Parliament for Liverpool and eminent among the more prominent public men of the day as a financier and economist. He had been very active in promoting the construction of the Liverpool & Manchester road, and now that it was completed he had exerted himself greatly to render its opening day a success worthy an enterprise the far-reaching consequences of which he was among the few to appreciate. All the trains had started promptly from Liverpool, and had proceeded gayly along through an ovation of applause until at eleven o'clock they had reached Parkside, seventeen miles upon their journey, where it had been arranged that the locomotives were to replenish their supplies of water. As soon as the trains had stopped, disregarding every caution against their so doing, the excited and joyous passengers left their carriages and mingled together, eagerly congratulating one another upon the unalloyed success of the occasion. Mr. Huskisson, though in poor health and somewhat lame, was one of the most excited of the throng, and among the first to thus expose himself. Presently he caught the eye of the Duke of Wellington, standing at the door of his car. Now it so happened that for some time previous a coolness had existed between the two public men, the duke having as premier, with that military curtness for which he was famed, dismissed Mr. Huskisson from the cabinet of which he had been a member, and that, as was generally considered, without any sufficient cause. There had in fact been a most noticeable absence of courtesy in that ministerial crisis. The two now met face to face for the first time since

the breach between them had taken place, and the duke's manner evinced a disposition to be conciliatory which was by no means usual with that austere soldier. Mr. Huskisson at once responded to the overture, and, going up to the door of the state carriage, he and his former chief shook hands and then entered into conversation. As they were talking, the duke seated in his car and Mr. Huskisson standing between the tracks, the *Rocket* locomotive — the same famous *Rocket* which a year previous had won the five hundred pounds prize, and by so doing established forever the feasibility of rapid steam locomotion — came along upon the other track to take its place at the watering station. It came up slowly and so silently that its approach was hardly noticed; until, suddenly, an alarm was given, and, as every one immediately ran to resume his place, some commotion naturally ensued. In addition to being lame, Mr. Huskisson seemed also under these circumstances to be quite agitated, and, instead of quietly standing against the side of the carriage and allowing the *Rocket* to pass, he nervously tried to get round its open door, which was swinging out across the space between the two tracks in such a way that the approaching locomotive struck it, flinging it back, and at the same time throwing Mr. Huskisson down. He fell on his face in the open space between the tracks, but with his left leg over the inner of the two rails upon which the *Rocket* was moving, so that one of its wheels ran obliquely up the limb to the thigh, crushing it shockingly. As if to render the distressing circumstances of the catastrophe complete, it so happened that the unfortunate man had left his wife's side when he got out of his car, and now he had been flung down before her eyes as he sought to reënter it. He was immediately raised, but he knew that his hurt was mortal, and his first exclamation was, "I have met my death!" He was at once placed on one of the state carriages, to which the *Northumbrian* locomotive was attached, and in twenty-five minutes was carried to Eccles, a distance of fifteen

miles, where medical assistance was obtained. He was far beyond its reach, however, and upon the evening of the same day, before his companions of the morning had completed their journey, he was dead.

Necessarily the accident to Mr. Huskisson threw a deep gloom over the remainder of the celebration, and it was, indeed, only with the utmost difficulty that the Duke of Wellington was prevailed upon not at once to return to Liverpool. The party did at last go on, but the day, which in its earlier hours had promised to be so bright and so auspicious, proved in its later hours sad and anxious enough. In the first place, the crowd which thronged along the railroad track was so great as to be wholly beyond control; neither was it a peculiarly good-natured or well-disposed gathering. For just then the public distress and discontent throughout England was greater than it had been within the memory of any man living; and, indeed, even now, it may be fairly questioned whether England ever saw a sadder or more anxious year than that in which the railroad era at last struggled painfully into life. Not unnaturally, in view of his official position and his hard, unyielding character, — set like a flint against any measure of sympathy or reform, — the premier-duke was probably the most unpopular man in the United Kingdom; so now, as the excursionists approached Manchester, the eyes of the prime minister were offended by distasteful mottoes and emblems, while more than once missiles even were thrown at the train. Finally, the directors were very glad to get the ministerial party out of Manchester and back to Liverpool at the cost of a derangement of their entire schedule for the day; nor did the duke subsequently hear Brougham's famous speech, made at the dinner given at Liverpool in honor of the event, in which with such infinite oratorical skill he referred at once to the wonders of the system that day inaugurated and to the catastrophe which had saddened its opening observances.

"When," he said, "I saw the diffi-

culties of space, as it were, overcome; when I beheld a kind of miracle exhibited before my astonished eyes; when I saw the rocks excavated and the gigantic power of man penetrating through miles of the solid mass, and gaining a great, a lasting, an almost perennial conquest over the powers of nature by his skill and industry; when I contemplated all this, was it possible for me to avoid the reflections which crowded into my mind, not in praise of man's great success, not in admiration of the genius and perseverance he had displayed, or even of the courage he had shown in setting himself against the obstacles that matter afforded to his course — no! but the melancholy reflection, that these prodigious efforts of the human race, so fruitful of praise but so much more fruitful of lasting blessings to mankind, have forced a tear from my eye by that unhappy casualty which deprived me of a friend and you of a representative!"

Though wholly attributable to his own carelessness, the death of so prominent a character as Mr. Huskisson, on such an occasion, could not but make a deep impression on the public mind. The fact that the dying man was carried seventeen miles in twenty-five minutes, in search of rest and medical aid, served rather to stimulate the vague apprehension of danger which thereafter associated itself with the new means of transportation, and converted it into a dangerous method of carriage which called for no inconsiderable display of nerve on the part of those using it. Indeed, as respects the safety of travel by rail there is an edifying similarity between the impressions which prevailed in England forty-five years ago and those which prevail in China now; for, when only last year it was proposed to introduce railroads into the Celestial Empire, a vigorous native protest was fulminated against them, in which, among other things scarcely less astounding, it was alleged that "in all countries where railroads exist they are considered a very dangerous mode of locomotion, and, beyond those who have very urgent busi-

ness to transact, no one thinks of using them."

On this subject, however, of the dangers incident to journeys by rail, a writer of nearly half a century back, who has left us one of the earliest descriptions of the Liverpool & Manchester road, thus reassured the public of those days, with a fresh quaintness of style which lends a present value to his words: "The occurrence of accidents is not so frequent as might be imagined, as the great weight of the carriages" (they weighed about one tenth part as much as those now in use in America) "prevents them from easily starting off the rails; and so great is the momentum acquired by these heavy loads moving with such rapidity, that they easily pass over considerable obstacles. Even in those melancholy accidents where loss of life has been sustained, the bodies of the unfortunate sufferers, though run over by the wheels, have caused little irregularity in the motion, and the passengers in the carriages have not been sensible that any impediment has been encountered on the road."

Indeed, from the time of Mr. Huskisson's death, during a period of over eleven years, railroads enjoyed a remarkable and most fortunate exemption from accidents. During all that time there did not occur a single disaster resulting in any considerable loss of life. This happy exemption was probably due to a variety of causes. Those early roads were, in the first place, remarkably well and thoroughly built, and were very cautiously operated under a light volume of traffic. The precautions then taken and the appliances in use would, it is true, strike the modern railroad superintendent as both primitive and comical; for instance, they involved the running of independent pilot locomotives in advance of all night passenger trains, and it was, by the way, on a pioneer locomotive of this description, on the return trip of the excursion party from Manchester after the accident to Mr. Huskisson, that the first recorded attempt was made in the direction of our present elaborate system of night sig-

nals. On that occasion obstacles were signaled to those in charge of the succeeding trains by a man on the pioneer locomotive, who used for that purpose a bit of lighted tarred rope. Through all the years between 1830 and 1841, nevertheless, not a single serious railroad disaster had to be recorded. Not that the corporations did not owe the exemption, among other things, to very fortunate and narrow escapes; and, curiously enough, the first accident which was at all serious in its character, which occurred after the death of Mr. Huskisson, was in its circumstances — except as respected loss of life — almost an exact parallel to the famous Revere disaster which happened in Massachusetts in August, 1871. It chanced on the Liverpool & Manchester Railway on the 23d of December, 1832.

THE RAINHILL COLLISION OF 1832.

The second-class morning train had stopped at the Rainhill station to take in passengers, when those upon it heard through the dense fog another train, which had left Manchester forty-five minutes later, coming towards them at a high rate of speed. When it first became visible it was but one hundred and fifty yards off, and a collision was inevitable. Those in charge of the stationary train, however, succeeded in getting it under a slight headway, and in so much diminished the shock of the collision; but the last five carriages were notwithstanding injured, the one at the end being totally demolished. Though quite a number of the passengers were cut and bruised, and several were severely hurt, one only, strange to say, was killed. This result was very different from that experienced by the Massachusetts corporation at Revere nearly forty years later, and, as the circumstances were much the same, it is necessary to conclude that luck varied.

Indeed, the luck — for it was nothing else — of those earlier times was truly amazing. Thus on this same Liverpool & Manchester road, as a first-class train on the morning of April 17, 1836, was

moving at a speed of some thirty miles an hour, an axle broke under the first passenger coach, causing the whole train to leave the track and throwing it down the embankment, which at that point was twenty feet high. The cars were rolled over, and the passengers in them tumbled about topsy-turvy; nor, as they were securely locked in, could they even extricate themselves when at last the wreck of the train reached firm bearings. And yet no one was killed. Here the corporation was saved by one chance in a thousand, and its almost miraculous good fortune received terrible illustration in a disaster which recently occurred on the Great Western Railway under almost precisely similar conditions, — that at Shipton-on-Cherwell, on December 24, 1874.

THE SHIPTON-ON-CHERWELL ACCIDENT.

It was the day immediately preceding Christmas, and every train which at that holiday season leaves London is densely packed, for all England seems then to gather away from its cities to the country hearths. Accordingly, the ten o'clock London express on the Great Western Railway, when it left Oxford that morning, was made up of no less than fifteen passenger carriages and baggage vans, drawn by two powerful locomotives and containing nearly three hundred passengers. About seven miles north of Oxford, as the train, moving at a speed of some thirty to forty miles an hour, was rounding a gentle curve in the approach to the bridge over the little river Cherwell, the tire of one of the wheels of the passenger coach next behind the locomotive broke, throwing it off the track. For a short distance it was dragged along in its place; but almost immediately those in charge of the locomotives noticed that something was wrong, and most naturally, and with the very best of intentions, they instantly did the very worst thing which under the circumstances it was in their power to do: they applied their brakes and reversed their engines; their single thought was

to stop the train. Had locomotives and cars been equipped with the continuous train-brakes now so generally in use in America, this action of the engine drivers would have checked at the same instant the speed of each particular car, and probably any serious catastrophe would have been averted. With the train equipped as it was, however, had these men, instead of crowding on their brakes and reversing their engines, simply shut off their steam, and by a gentle application of the brakes checked the speed gradually, and so as to avoid any strain on the couplings, the cars would probably have held together and remained upon the road-bed. Instead of this, however, the sudden checking of the two ponderous locomotives converted them into an anvil, as it were, upon which the unfortunate leading car, already off the rails, was crushed under the weight and impetus of the succeeding cars. The train instantly zig-zagged in every direction under the pressure, the couplings which connected it together snapping; and the cars, after leaving the rails to the right and left and running down the embankment of about thirteen feet in height, came to a stand-still at last, several of them in the reverse order from that which they had held while in the train. The first carriage was run over and completely destroyed; the five rear ones were alone left upon the road-bed, and of these two only were on the rails; of the ten which went down the embankment, two were demolished. In this disaster thirty-four passengers lost their lives, and sixty-five others, besides four employés of the company, were injured.

These two disasters, divided from each other by the lapse of more than a third of a century, were similar in every respect except loss of life; for, while a surprising immunity in this respect marked the first, the last ranks among the most fatal railroad catastrophes on record. Yet, upon the other hand, it may well be questioned whether the first was not wholly barren of results in so far as any increased safety in travel by rail was concerned; for, like other mortals, railroad officers are apt after some hair-breadth

escape to bless their fortunate stars for the present good, rather than to take anxious heed for future dangers. The English, also, are especially prone to conservatism. In this respect there is, indeed, something almost ludicrously characteristic in the manner with which those interested in the railway management of that country strain at their gnats while they swallow their camels. They have grappled with the great question of city travel with a superb financial and engineering audacity which has left all other communities hopelessly distanced; but, while carrying their passengers under and over the ebb and flow of the Thames and among the chimney-pots of densest London, to leave them on the very steps of the Royal Exchange, they have never been able to devise any satisfactory means for putting the traveler, in case of disaster, in communication with the engineer of his train. It is, indeed, a fact which would be wholly curious were it not partly comical, that, after the ingenuity of all England had for a third of a century exhausted itself in vain efforts at the solution of this tremendous problem, it appeared at the Shipton-on-Cherwell investigation that the associated general managers of the leading railways "did not think that any [such] means of communication was at all required, or likely to be useful or successful." So also as respects the application of the train-brake, which places the speed of each car under the direct and instantaneous control of him who is in charge of the locomotive; for years the success of these brakes has been conceded even by the least progressive of American railroad managers, and the want of them had directly and obviously contributed to the Shipton-on-Cherwell disaster, even if it had not wholly caused its murderous destructiveness; and yet in the investigation which ensued from it, it appeared that the authorities of the Great Western Railway, being eminently "practical men," still entertained "very great doubts of the wisdom of adopting continuous brakes at all." Such conservatism as this is open to but one description of argument, the *ultima*

ratio of railroad logic. So long as luck averts the loss of life in railroad disasters, no occasion is seen for disturbing time-honored precautions or antiquated appliances. While, however, a disaster like that of December 24, 1874, may not convince, it does compel: incredulity and conservatism vanish, silenced, at least, in presence of so frightful a row of corpses as on that morning made ghastly the banks of the Cherwell. The general introduction of train-brakes upon the railways of Great Britain will date from that event.

THE DEODAND.

To return, however, to those earlier years during which wholesale railroad slaughters were as yet unknown. One curious illustration of this fact appeared in the quaint penalty which was, in case of disasters on railways resulting in a loss of human life, imposed upon the corporations. It was a principle of English common law, derived from the feudal period, that anything through the instrumentality of which death occurred was forfeited to the crown as a deodand; accordingly, down to the year 1840, and even later, we find, in all cases where persons were killed, records of deodands levied by the coroner's juries upon the locomotives. These appear to have been arbitrarily imposed and graduated in amount accordingly as circumstances seemed to excite in greater or less degree the sympathies or the indignation of the jury. In November, 1838, for instance, a locomotive exploded upon the Liverpool & Manchester road, killing its engineer and fireman; and for this escapade a deodand of twenty pounds was assessed upon it by the coroner's jury; while upon another occasion, in 1839, where the locomotive struck and killed a man and horse at a street crossing, the deodand was fixed at no less a sum than fourteen hundred pounds, the full value of the engine. Yet in this last case there did not appear to be any circumstances rendering the corporation liable in civil damages. The deodand seems to have been looked upon as a species of rude penalty im-

posed on the use of dangerous appliances, a sharp reminder to the corporations to look closely after their locomotives and employés. As, however, accidents increased in frequency, it became painfully apparent that "crown-er's 'quest law'" was not in any appreciable degree better calculated to command the public respect in the days of Victoria than in those of Elizabeth, and the ancient usage was accordingly at last abolished. Certainly the position of railroad corporations would now be even more hazardous than it is, if, after every catastrophe resulting in death, the coroner's jury of the vicinage enjoyed the power of arbitrarily imposing on them such additional penalty, in addition to all other liabilities, as might seem to it proper under the circumstances of the case.

The period of exemption lasted eleven years, and, curiously enough, the record of great catastrophes opened on the Great Western Railway and upon the 24th of December, a day which seems to have been peculiarly unfortunate in the annals of that company, seeing that it was likewise the date of the Shipton-on-Cherwell disaster. Upon that day in 1841, a train, while moving through a thick fog at a high rate of speed, came suddenly in contact with a mass of earth which had slid from the embankment at the side on to the track. Instantly the whole rear of the train was piled up on top of the first carriage, which happened to be crowded with passengers, eight of whom were killed on the spot, while seventeen others were more or less injured. The coroner's jury returned a verdict of accidental death, and at the same time, as if to give the corporation a forcible hint to look closer to the condition of its embankments, a deodand of one hundred pounds was levied on the locomotive and tender.

TELESCOPING.

The disaster in this case was due to the telescoping, as it is termed, of cars. That is, the cars are closed up in each other like the slides of a telescope, under

the immense pressure of the instantaneous stopping of a train in rapid motion. This is, upon the whole, the most frightful danger to which travel by rail is liable, and there are but two ways in which provision can be made to meet it. The occurrence of accident may be guarded against through an unsleeping and all-pervading vigilance; or, where it must occur, an equipment may be provided so strong as to be capable of meeting and resisting it. Now, so long as trains go at great speed and depend for their safety on human precaution, it is inevitable that they will occasionally run upon some unexpected obstacle. The simple wonder is that they do this so infrequently. Were it not an accomplished fact, the security in this respect which has been attained would be deemed simply impossible. Though sometimes inevitable, the occurrence of accidents of this description may, however, in the vastly larger proportion of the few instances in which they must occur, be rendered harmless just in proportion as those in charge of a train can reduce its speed, or as the train itself, through its more perfect construction, can resist the pressure of a sudden shock. Improved brakes and stronger and heavier car construction are the great safeguards against telescoping, and the advance made in these respects of late years on the American railroads has been little short of wonderful. This has been due to two inventions, both of which have only recently been brought into general use: the atmospheric train-brake, and what is, from the name of its inventor, known as the Miller platform and buffer. By the first the velocity of the whole train in its every part is placed directly and immediately under the control of its engineer; and by the last the cars of a train are practically converted into one continuous body, in which there are no separate or loosely connected parts to be crushed into each other, or piled on top of each other. Had the train upon the Great Western Railway at Shipton-on-Cherwell, in 1841, been equipped with the continuous train-brake, the worst features of that catastrophe would

certainly have been averted, and it would have been passed over unnoticed as a simple, ordinary case of derailment. Had the cars of which that train was composed, or those of the other train on the same road just thirty-three years before, been built with the Miller platform and buffer, their strength, converting them into substances too hard to be crushed, would in both cases have resisted the shock caused by the sudden stopping of the locomotives.

THE FOXBOROUGH ACCIDENT.

A very apt illustration of what might have been the result in these cases was furnished in an accident, not dissimilar to that at Shipton-on-Cherwell in character, which happened in Massachusetts on the Boston & Providence Railroad upon July 15, 1872. As an express train was running up to Boston about noon of that day, and at a rate of speed of some forty miles an hour, it came in contact with a horse and wagon at a grade crossing in the town of Foxborough. The train was made up of thoroughly well-built cars, equipped with both the Miller platform and the Westinghouse train-brake. There was no time in which to check the speed, and it thus became a simple question of strength of construction, to be tested in an unavoidable collision. The engine struck the wagon, and instantly destroyed it. The horse had already cleared the rails when the wagon was struck, but, a portion of his harness getting caught on the locomotive, he was thrown down and dragged a short distance until his body came in contact with the platform of a station close to the spot of collision. The body was then forced under the cars, having been almost instantaneously rolled and pounded up into a hard, unyielding mass. The results which ensued were certainly very singular. Next to the locomotive was an ordinary baggage and mail car, and it was under this car, and between its forward and its hind truck, that the body of the horse was forced; coming then directly in contact with the truck of the rear wheels, it tore it from its fastenings and

thus let the rear end of the car drop upon the track. In falling, this end snapped the coupling by its weight, and so disconnected the train, the locomotive going off towards Boston dragging this single car, with one end of it bumping along the track. Meanwhile the succeeding car of the train had swept over the body of the horse and the disconnected truck, which were thus brought in contact with its own wheels, which in their turn were also torn off; and so great was the impetus that in this way all of the four passenger cars which composed that part of the train were successively driven clean off their rolling gear, and not only did they then slide off the track, but they crossed a railroad siding which happened to be at that point, went down an embankment some three or four feet in height, demolished a fence, passed into an adjoining field, and then at last, after glancing from the stump of a large oak-tree, they finally came to a stand-still some two hundred feet from the point at which they had left the track. There was not in this case even an approach to telescoping; on the contrary, each car rested perfectly firmly in its place as regarded all the others, not a person was injured, and when the wheelless train at last became stationary the astonished passengers got up and hurried through the doors, the very glass in which as well as that in the windows was unbroken. Here was an indisputable victory of skill and science over accident, showing most vividly to what an infinitesimal extreme the dangers incident to telescoping may be reduced.

THE DIFFERENCE. 1854 AND 1874.

The vast progress in this direction made within twenty years was again even more forcibly illustrated by the results of two accidents almost precisely similar in character, which occurred, the one on the Great Western Railroad of Canada, in October, 1854, the other on the Boston & Albany, in Massachusetts, in October, 1874. In the first case a regular train made up of a locomotive and seven cars, while approach-

ing Detroit at a speed of some twenty miles an hour, ran into a gravel train of fifteen cars which was backing towards it at a speed of some ten miles an hour. The locomotive of the passenger train was thrown completely off the track and down the embankment, dragging after it a baggage car. At the head of the passenger portion of the train were two second-class cars filled with emigrants; both of these were telescoped and demolished, and all their unfortunate occupants either killed or injured. The front of the succeeding first-class car was then crushed in, and a number of those in it were hurt. In all, no less than forty-seven persons lost their lives, while sixty others were maimed or severely bruised. So much for a collision in October, 1854. In October, 1874, on the Boston & Albany road, the regular New York express train, consisting of a locomotive and seven cars, while going during the night at a speed of forty miles an hour, was suddenly, near the Brimfield station, thrown by a misplaced switch into a siding upon which a number of platform freight cars were standing. The train was thoroughly equipped, having both Miller platform and Westinghouse brake. The six seconds which intervened, in the darkness, between notice of displacement and the collision, did not enable the engineer to check perceptibly the speed of his train, and when the blow came it was a simple question of strength to resist. The shock must have been tremendous, for the locomotive and tender were flung off the track to the right and the baggage car to the left, the last being thrown across the interval between the siding and the main track and resting obliquely over the latter. The forward end of the first passenger car was thrown beyond the baggage car up over the tender, and its rear end, as well as the forward end of the succeeding car, was injured. As in the Foxborough case, several of the trucks were jerked out from under the cars to which they belonged, but not a person on the train was more than slightly bruised, the cars were not disconnected, nor was there a suggestion even of telescoping.

Such contrasts are their own best comment.

THE VERSAILLES ACCIDENT IN 1842.

Going back once more to the early days, a third of a century since, before yet the periodical recurrence of slaughters had caused either train-brake or Miller platform to be imagined as possibilities, before, indeed, there was yet any record of what we would now consider a regular railroad field-day, with its long train of accompanying horrors, including in the grisly array death by crushing, scalding, drowning, burning, and impalement, — going back to the year 1840, or thereabouts, we find that the railroad companies experienced a notable illustration of the truth of the ancient adage that it never rains but it pours; for it was then that the long immunity was rudely broken in upon. After that time disasters on the rail seemed to tread upon one another's heels in quick and frightful succession. Within a few months of the English catastrophe of December 24, 1841, there happened in France one of the most famous and most horrible railroad slaughters ever recorded. It took place on the 8th of May, 1842. It was the birthday of the king, Louis Philippe, and, in accordance with the usual practice, the occasion had been celebrated at Versailles by a great display of the fountains. At half past five o'clock these had stopped playing, and a general rush ensued for the trains then about to leave for Paris. That which went by the road along the left bank of the Seine was densely crowded, and was so long that it required two locomotives to draw it. As it was moving at a high rate of speed between Bellevue and Meudon, the axle of the foremost of these two locomotives broke, letting the body of the engine drop to the ground. It instantly stopped, and the second locomotive was then driven by its impetus on top of the first, crushing its engineer and fireman, while the contents of both the fire-boxes were scattered over the roadway and among the *débris*. Three carriages crowded with passengers were then piled on top of this burning mass,

and there crushed together into each other. The doors of the train were all locked, as was then and indeed is still the custom in Europe, and it so chanced that the carriages had all been newly painted. They blazed up like pine kindlings. Some of the carriages were so shattered that a portion of those in them were enabled to extricate themselves, but no less than forty were held fast; and of these such as were not so fortunate as to be crushed to death in the first shock perished hopelessly in the flames before the eyes of a throng of impotent lookers-on. Some fifty-two or fifty-three persons were supposed to have lost their lives in this disaster, and more than forty others were injured; the exact number of the killed, however, could never be ascertained, as the telescoping of the cars on top of the two locomotives had made of the destroyed portion of the train a veritable holocaust of the most hideous description. Not only did whole families perish together, — in one case no less than eleven members of the same family sharing a common fate, — but the remains of such as were destroyed could neither be identified nor separated. In one case a female foot was alone recognizable, while in others the bodies were calcined and fused into an indistinguishable mass. The Academy of Sciences appointed a committee to inquire whether Admiral D'Urville, a distinguished French navigator, was among the victims. His body was thought to be found, but it was so terribly mutilated that it could be recognized only by a sculptor, who chanced some time before to have taken a phrenological cast of his skull. His wife and only son had perished with him.

It is not easy now to conceive the excitement and dismay which this catastrophe caused throughout France. The new invention was at once associated in the minds of an excitable people with novel forms of imminent death. France had at best been laggard enough in its adoption of the new appliance, and now it seemed for a time as if the Versailles disaster was to operate as a barrier in the way of all further railroad develop-

ment. Persons availed themselves of the steam roads already constructed as rarely as possible, and then in fear and trembling, while steps were taken to substitute horse for steam power on other roads then in process of construction.

The disaster was, indeed, one well calculated to make a deep impression on the popular mind, for it lacked almost no attribute of the dramatic and terrible. There were circumstances connected with it, too, which gave it a sort of moral significance, — contrasting so suddenly the joyous return from the country *fête* in the pleasant afternoon of May, with what De Quincey has called the terror of sudden death. It contained a whole homily on the familiar text. As respects the number of those killed and injured, also, the Versailles accident has not often been surpassed; perhaps never in Europe. In this country it was surpassed on one occasion at least, and then under circumstances very similar to it. This was the accident at Camphill station, about twelve miles from Philadelphia, on the 17th of July, 1856, which befell an excursion train carrying some eleven hundred children, who had gone out on a Sunday-school picnic in charge of their teachers and friends.

THE CAMPHILL ACCIDENT.

It was the usual story. The road had but a single track, and the train, both long and heavy, had been delayed and was running behind its schedule time. The conductor thought, however, that the next station could yet be reached in time to meet and there pass a regular train coming towards him. It may have been a miscalculation of seconds, it may have been a difference of watches, or perhaps the regular train was slightly before its time; but, however it happened, as the excursion train, while running at speed, was rounding a reverse curve, it came full upon the regular train, which had just left the station. In those days, as compared with the present, the cars were but egg-shells, and the shock was terrific. The loco-

motives struck each other, and, after rearing themselves up for an instant, it is said, like living animals, fell to the ground, mere masses of rubbish. In any case the force of the shock was sufficient to hurl both engines from the track and lay them side by side at right angles and some distance from it. As only the excursion train happened to be running at speed, it alone had all the impetus necessary for telescoping; three of its cars accordingly closed in upon each other, and the children in them were crushed; as in the Versailles accident, two succeeding cars were driven on to this mass, and then fire was set to the whole from the ruins of the locomotives. It would be hard to imagine anything more thoroughly heart-rending, for the holocaust was of little children on a party of pleasure. Five cars in all were burned, and sixty-six persons perished; the injured numbered more than a hundred.

Of this disaster nothing could be said either in excuse or in extenuation; it was not only one of the worst description, but it was one of that description the occurrence of which is most frequent. An excursion train, while running against time on a single-track road, came in collision with a regular train. The record is full of similar disasters, closing with that at Far Rockaway on the South Side Railroad of Long Island, upon the 5th of July, 1875, with its ten killed and thirty injured. Primarily, of course, the conductors of the excursion trains were at fault in all these cases; nor should it be forgotten that the unfortunate man who had charge of the Camphill train destroyed himself the next day by swallowing arsenic. But in reality, in these and in all similar cases,—both those which have happened and those hereafter surely destined to happen,—the final responsibility does not rest upon the unfortunate or careless subordinate; nor should the weight of punishment be visited upon him. It belongs elsewhere. At this late day no board of directors, nor president, nor superintendent has any right to operate a single-track road without the constant use of the telegraph; and, if they persist in so doing, it should be

under a constant and well understood liability to the penalties for manslaughter. That the telegraph can be used to block, as it is termed, double-track roads, by dividing them into sections, upon no one of which two trains can be running at the same time, is matter of long and daily experience. There is nothing new or experimental about it. It is a system which has been forced on the more crowded lines of the world as an alternative to perennial killings. That in the year 1875, excursion trains should rush along single-track roads and hurl themselves against regular trains is sufficiently incredible; but that such roads should be operated without the constant aid of the telegraph as a means of blocking their tracks for every irregular train indicates a degree of wanton carelessness, or an excess of incompetence, for which adequate provision should be made in the criminal law.

COLLISIONS CAUSED BY THE TELEGRAPH.

And yet, even with the wires in active use, collisions like those at Far Rockaway and at Camphill will occasionally take place. They have sometimes, indeed, even been caused by the telegraph, so that railroad officials at two adjoining stations on the same road, having launched trains at each other beyond recall, have busied themselves while waiting for tidings of the inevitable collision in summoning medical assistance for those sure soon to be injured. In such cases, however, the mishap can almost invariably be traced to some defect in the system under which the telegraph is used; such as a neglect to exact return messages to insure accuracy, or the delegating to inexperienced subordinates the work which can be properly performed only by a principal. This was singularly illustrated in a terrible collision which took place at Thorpe, between Norwich and Great Yarmouth, on the Great Eastern Railway in England, on the 10th of September, 1874. The line had in this place but a single track, and the mail train to Norwich, under the rule,

had to wait at a station called Brundell until the arrival there of the evening express from Yarmouth, or until it received permission by the telegraph to proceed. On the evening of the disaster the express train was somewhat behind its time, and the inspector wrote a dispatch directing the mail to come forward without waiting for it. This dispatch he left in the telegraph office unsigned, while he went to attend to other matters. Just then the express train came along, and he at once allowed it to proceed. Hardly was it under way when the unsigned dispatch occurred to him, and the unfortunate man dashed to the telegraph office only to learn that the operator had forwarded it. Under the rules of the company no return message was required. A second dispatch was instantly sent to Brundell to stop the mail; the reply came back that the mail was gone. A collision was inevitable.

The two trains were of very equal weight, the one consisting of fourteen and the other of thirteen carriages. They were both drawn by powerful locomotives, the drivers of which had reason for putting on an increased speed, believing, as each had cause to believe, that the other was waiting for him. The night was intensely dark and it was raining heavily, so that, even if the brakes were applied, the wheels would slide along the slippery track. Under these circumstances the two trains rushed upon each other round a slight curve which sufficed to obscure their headlights. The combined momentum must have amounted to little less than sixty miles an hour, and the shock was heard through all the neighboring village. The funnel of the locomotive drawing the

mail train was swept away, and the other locomotive seemed to rush on top of it, while the carriages of both trains followed until a mound of locomotives and shattered cars was formed which the descending torrents alone hindered from becoming a funeral pyre. So sudden was the collision that the driver of one of the engines did not apparently have an opportunity to shut off the steam, and his locomotive, though forced from the track and disabled, yet remained some time in operation in the midst of the wreck. In both trains, very fortunately, there were a number of empty cars between the locomotives and the carriages in which the passengers were seated, and they were utterly demolished; but for this fortunate circumstance, the Thorpe collision might well have proved the most disastrous of all railroad accidents. As it was, the men on both the locomotives were instantly killed, together with seventeen passengers, and four other passengers subsequently died of their injuries; making a total of twenty-five deaths, besides fifty cases of injury.

No more violent collision than this at Thorpe probably ever took place; and yet, as curiously illustrating how rapidly the most severe shock expends its force, it is said that two gentlemen in the last carriage of one of the trains, finding themselves suddenly stopped close to their destination, supposed it was for some unimportant cause, and concluded at once to take advantage of such a happy chance by getting out and walking to their homes, which they did, and learned only the next morning of the catastrophe in which they had been unconscious participants.

Charles Francis Adams, Jr.

OLD WOMAN'S GOSSIP.

GREAT was the general surprise of the dancing class when this large, tall, handsome English girl, of about eighteen, entered the room in a rose-colored silk dress, with very low neck and very short sleeves, white satin shoes, and white kid gloves; her long auburn ringlets and ivory shoulders glancing in the ten o'clock morning sunlight with a sort of incongruous splendor, and her whole demeanor that of the most innocent and modest tranquillity.

Mademoiselle Descuillès shut her book to with a snap, and sat bolt upright and immovable, with eyes and mouth wide open. Young Mr. Guillet blushed purple, and old Mr. Guillet scraped a few interjections on his fiddle and then, putting it down, took a resonant pinch of snuff, by way of restoring his scattered senses.

No observation was made, however, and the lesson proceeded, young Mr. Guillet turning scarlet each time either of his divergent orbs of vision encountered his serenely unconscious full-dressed pupil; which certainly, considering that he was a member of the *Grand Opera corps de ballet*, was a curious instance of the purely conventional ideas of decency which custom makes one accept. The stripping of the bosom and careful covering of the back of the neck and shoulders in the days of our great-grandmothers, who were bare-faced before and shame-faced behind, was a ludicrous exemplification of the same partial sense of decency. It was reserved for the Empress Eugénie to countenance a fashion which, for the first time in historical France, uncovered alike back and bosom and the arms, up to the shoulders and armpits.

This lady, whose strangely checkered fortunes are now part of European history, joined to a peculiarly devout sentiment of religion, such as she conceived and believed it, a passion for dress, which, combined with her "piety,"

must have produced a singularly incongruous medley of influences on the female France over whose modes and morals she held for some eventful years imperial sway. In one of her dressing-rooms she had a set of lay figures or dolls of life-size, upon which she used to study for hours the different effects of different fashions. In her château of Biarritz, whither she retired for summer ease and relaxation, and the grander influences of the rocks and waves of the Atlantic shore, her dressing-room contained a sort of cupola, in which the dress she was about to wear was suspended, so that it might descend upon her person standing beneath, without the *crumpling* intervention of the hands of even the best trained *dame d'atours*. In the Middle Ages such a piece of machinery would have suggested the terrible insecurity of royal life, and a device to escape the chances of assassination which the throwing of a mass of drapery over the head and shoulders might favor; in the nineteenth century, it testified to the desire of a great princess that her gown should be put upon her "*sans faire un pli*." The princes of the house of Orleans preserved at Claremont, in the sketch-books they brought back from some early tours in Spain, spirited portraits, from nature, of the *séduisante* Eugénie de Teba, in every variety of Spanish national costume. After their expulsion and exile from France, and the confiscation of their property by Louis Napoleon, these sketches of his wife, then Empress of the French, continued to adorn their portfolios, with curious reminiscences of gay riding parties, in which she, in her picturesque costume, was always the principal figure. After Louis Napoleon's marriage, Lady C—— (then still *la grande Mademoiselle*) stayed at the Tuileries during one of her visits to Paris, and among other things my curiosity elicited from her was the confirmation of the general im-