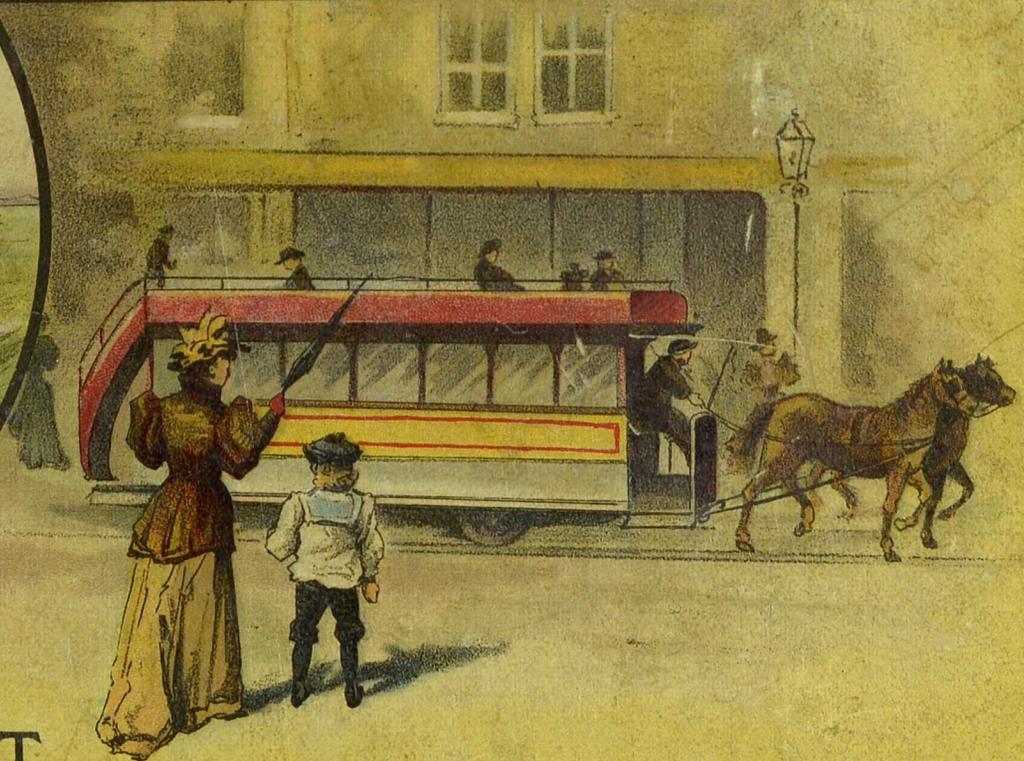
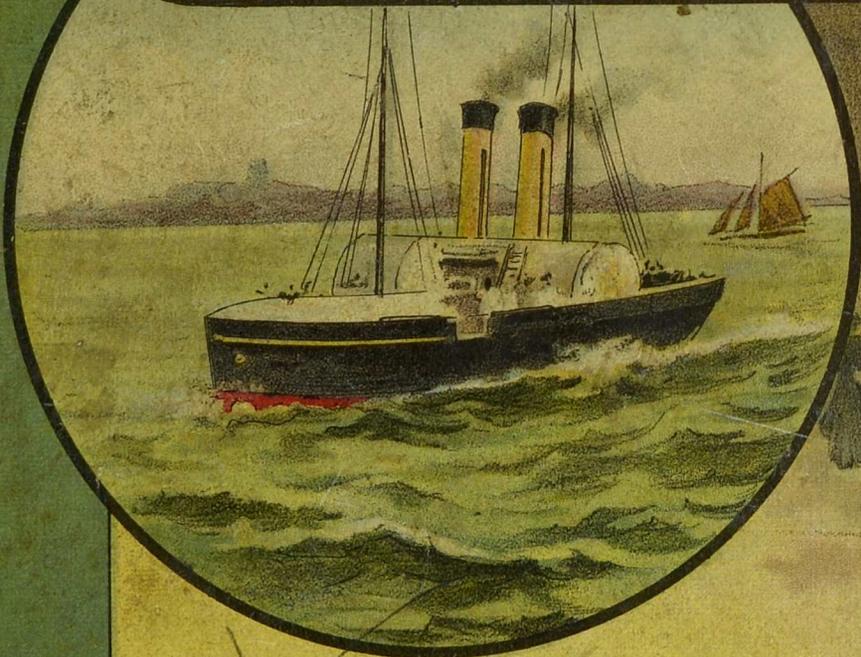
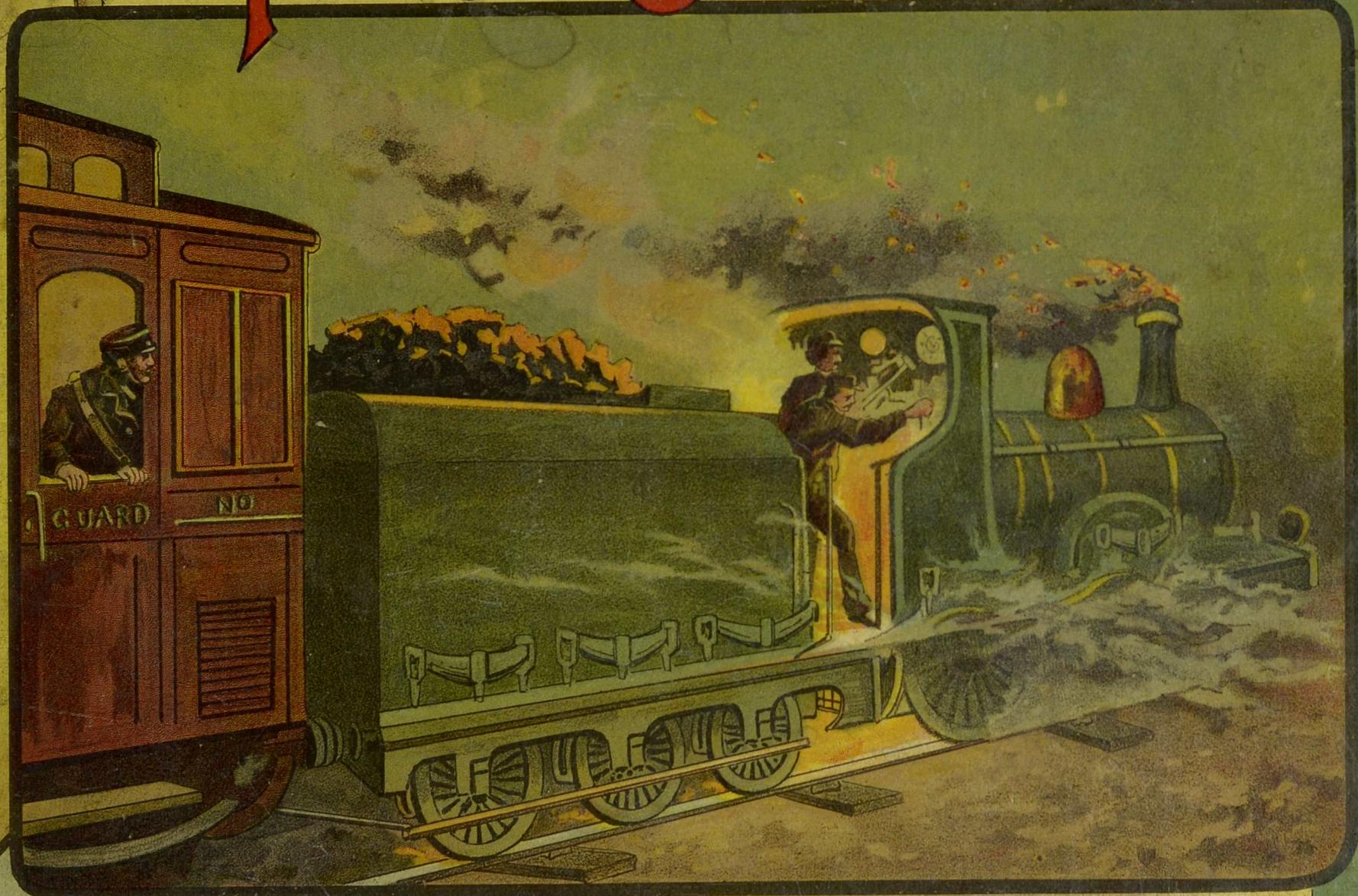


LITTLE HARRY'S FIRST JOURNEYS

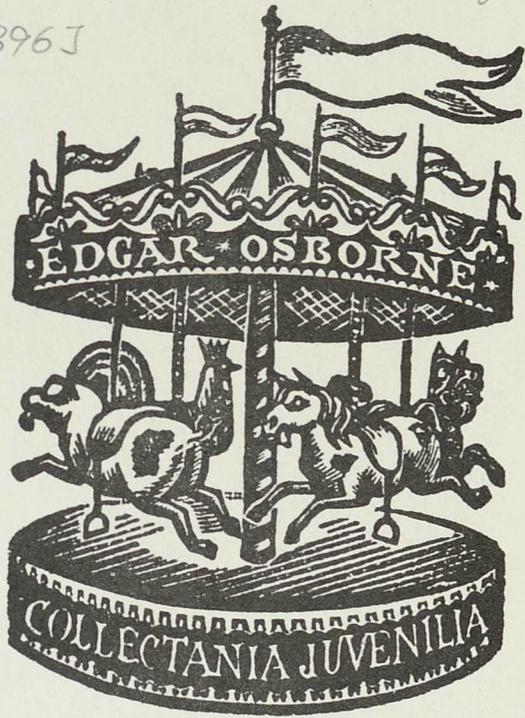


ALL ABOUT

TRAINS TRAMS and STEAMERS

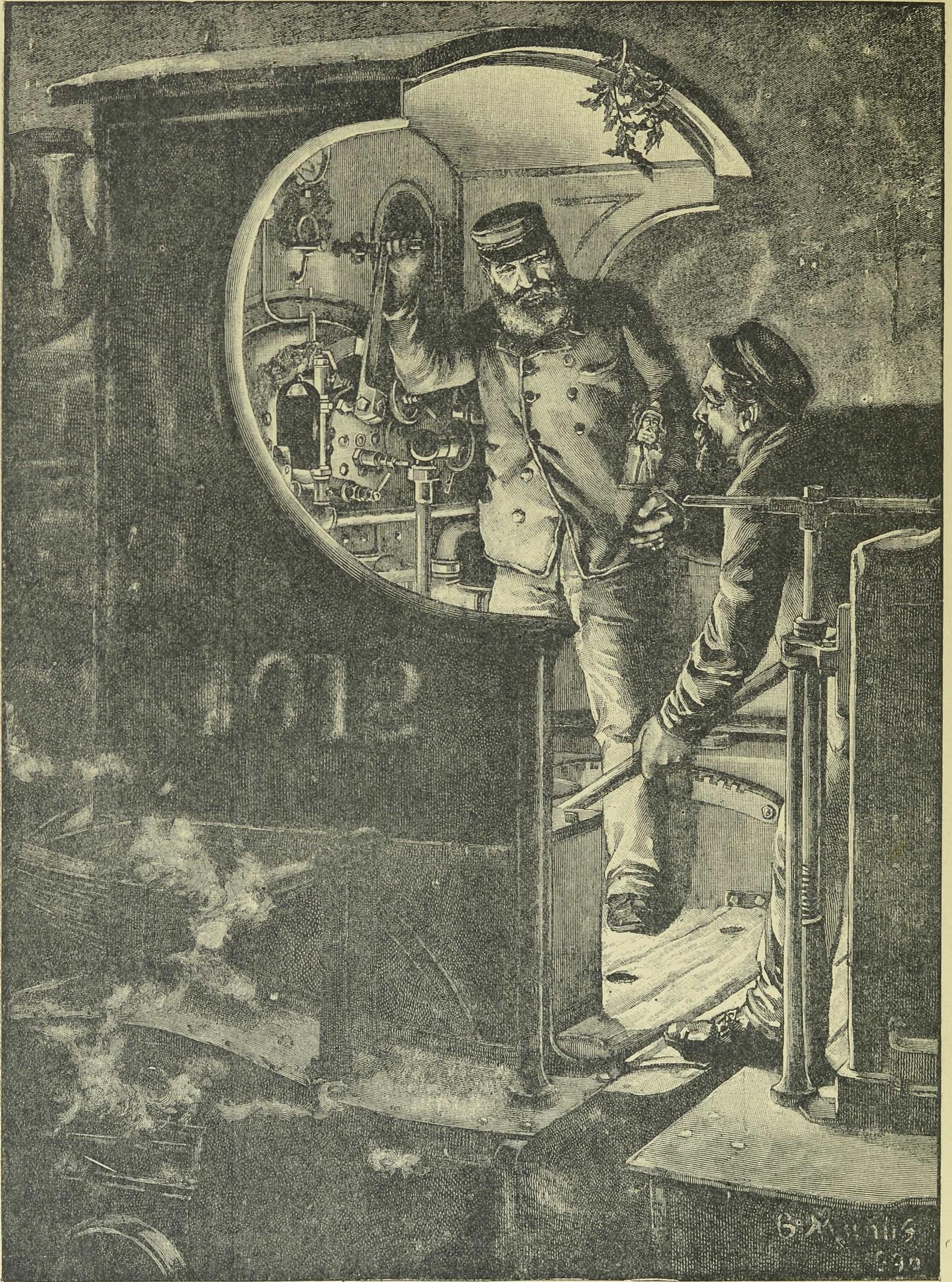
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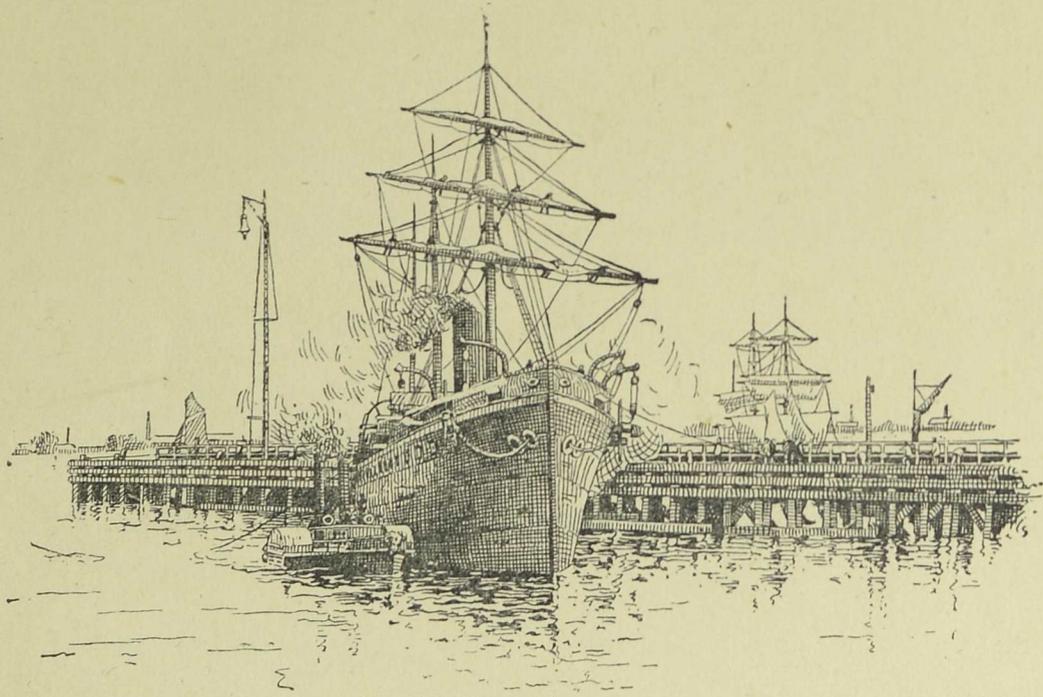


CHRISTMAS EVE ON THE ENGINE

[See page 26.]

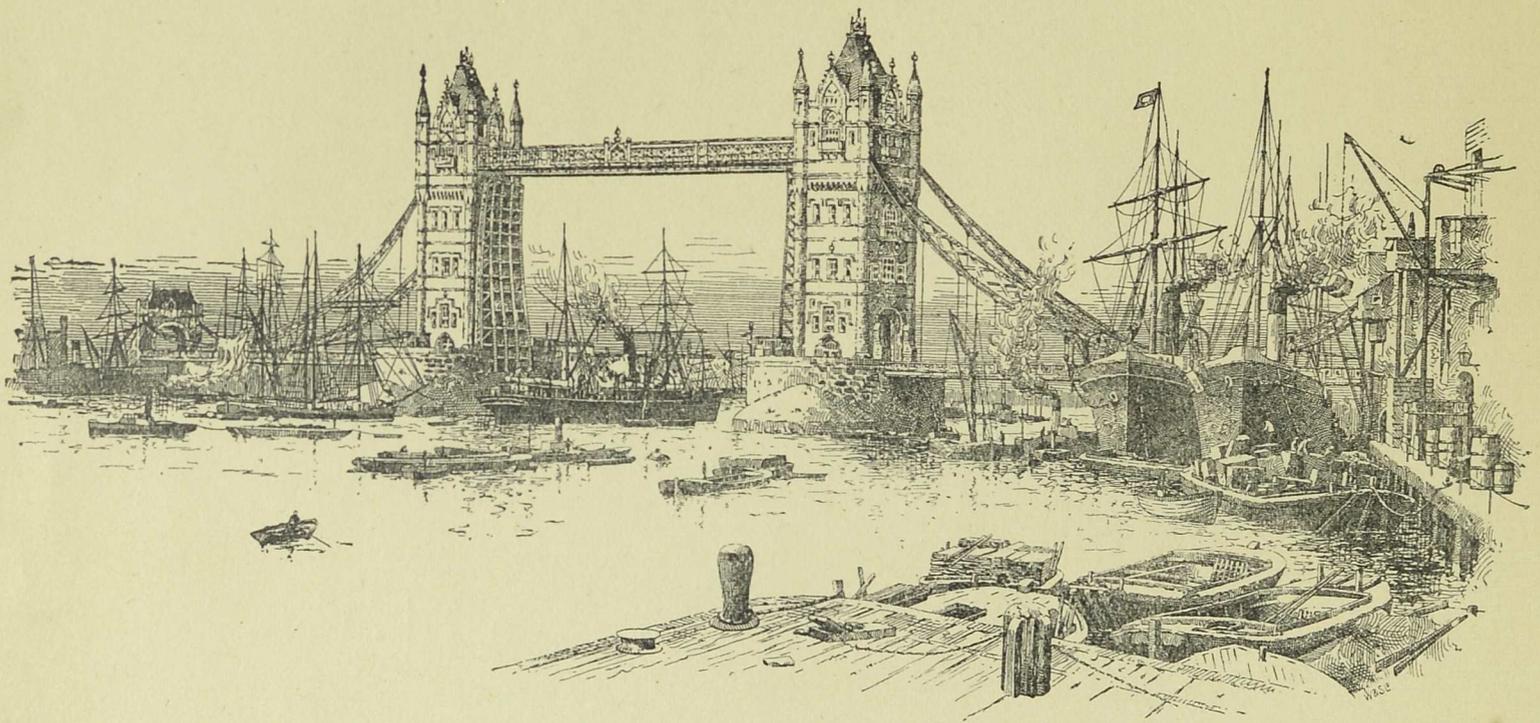
LITTLE HARRY'S FIRST JOURNEYS

*TRIPS BY TRAIN BY STEAMER
TRAM AND 'BUS*



*P. & O. Mail Steamer Glyde,
Entering the Royal
Albert Docks.*

LONDON
THE RELIGIOUS TRACT SOCIETY
56 PATERNOSTER ROW AND 65 ST. PAUL'S CHURCHYARD



THE TOWER BRIDGE

LITTLE HARRY'S

FIRST JOURNEYS

CHAPTER I

OUT IN THE TRAIN

‘OH, I should like to go in a real train, mamma! These are only toys; they don't go puff-puff like a real train.’

‘Well, I will take you one day, Harry; we will go up to the City to see papa.’

‘That will be nice, mamma;’ and Harry beat his toy drum so vigorously that poor mamma put her hands to her ears, and bade him be quiet.

‘And you shall go in a steamboat on the river if the day is fine,’ she added; ‘and see the trams and omnibuses also in the streets.’

‘That will be jolly!’ cried Harry again; and once more he began to beat his drum, until he remembered his mother's injunction and stopped in time.

‘But, mamma,’ he asked presently, ‘what makes the train go puff-puff?’

And he puckered up his forehead into a little frown, as though thinking deeply.

‘Steam, Harry; steam makes the puff-puff go.’

‘Steam, mamma?’ cried Harry questioningly. ‘Steam like that in the kettle when it boils? Elizabeth said that was steam.’

‘Yes, Harry, steam like that. You have seen the lid of the kettle raised up and down and clattered by the steam puffing up from the boiling water within—so, you see, the steam of even a little kettle has some power. Now, just think what mighty power the steam of a big kettle like the puff-puff engine has!’

‘Has the puff-puff engine a kettle, mamma?’ asked Harry, opening his eyes very wide.

‘Not a kettle such as we have,’ replied mamma; ‘but it has a boiler—the boiler is in the great round part of the engine.’

‘And a fire, mamma! Has it a fire?’

‘Oh yes, Harry; a big, hot fire, which the engine-men have to keep well supplied with fuel.’

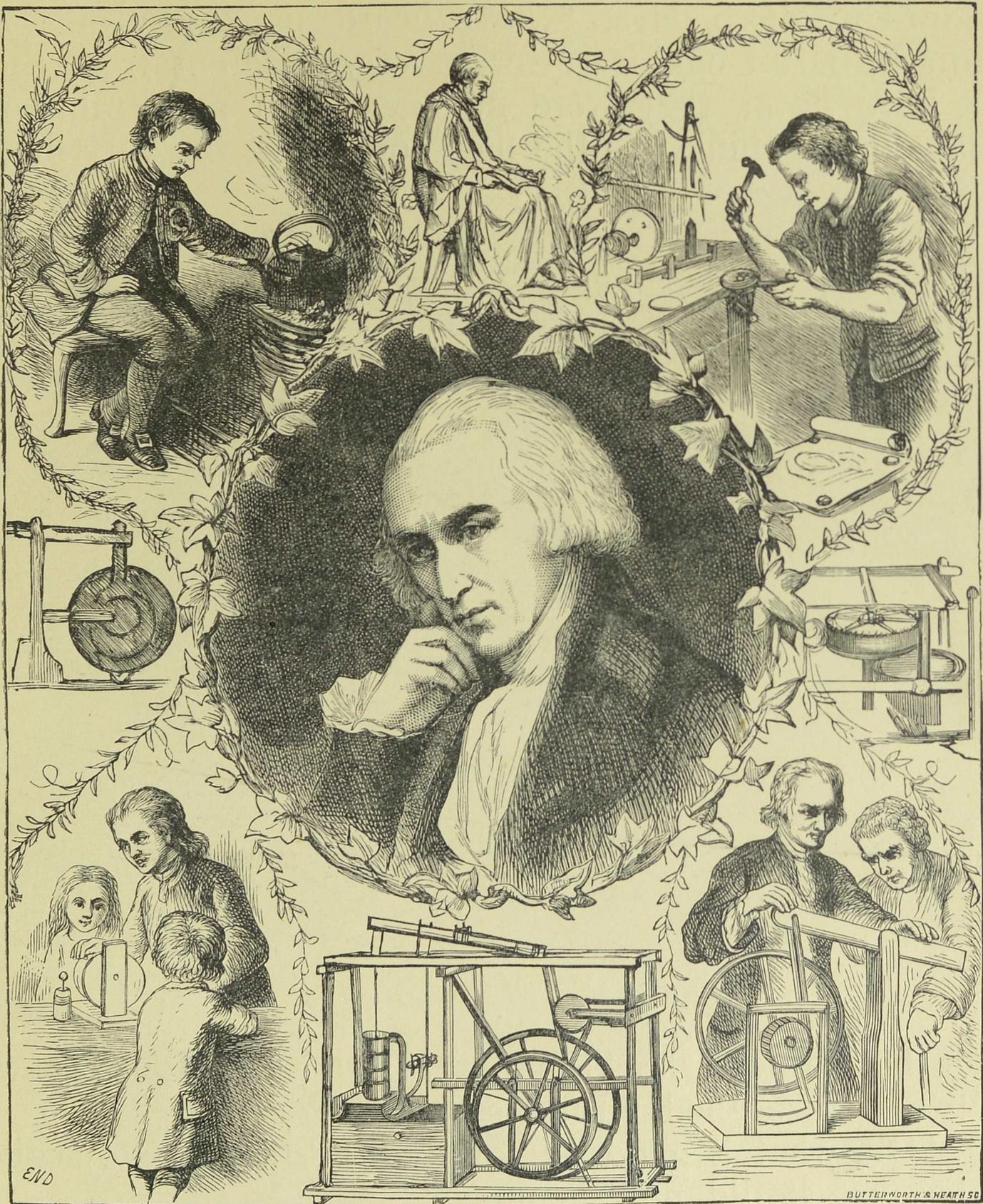
‘And may I see the man put the coal on? And—oh—mamma, where do they keep the water that is to boil to make the steam?’

‘They keep it, I have heard papa say, in a tank in the tender just behind the engine, and sometimes they take it in at stations they stop at on the way. Do you know, Harry, that James Watt, who improved the steam-engine so much that he might almost be called its inventor,—James Watt, when he was a little boy, used to sit by the fire and watch his aunt’s tea-kettle boiling, and think about the power of steam?’

‘When he was quite a little boy, mamma?’

‘Yes, Harry. When he was quite a boy he used to see the lid clattering up and down as the steam rose beneath, and as it came puffing out of the spout, to put a cup over the steam, and watch it condense back into water as it grew colder. And by and by, when he was a big man, he learned how to make instruments and

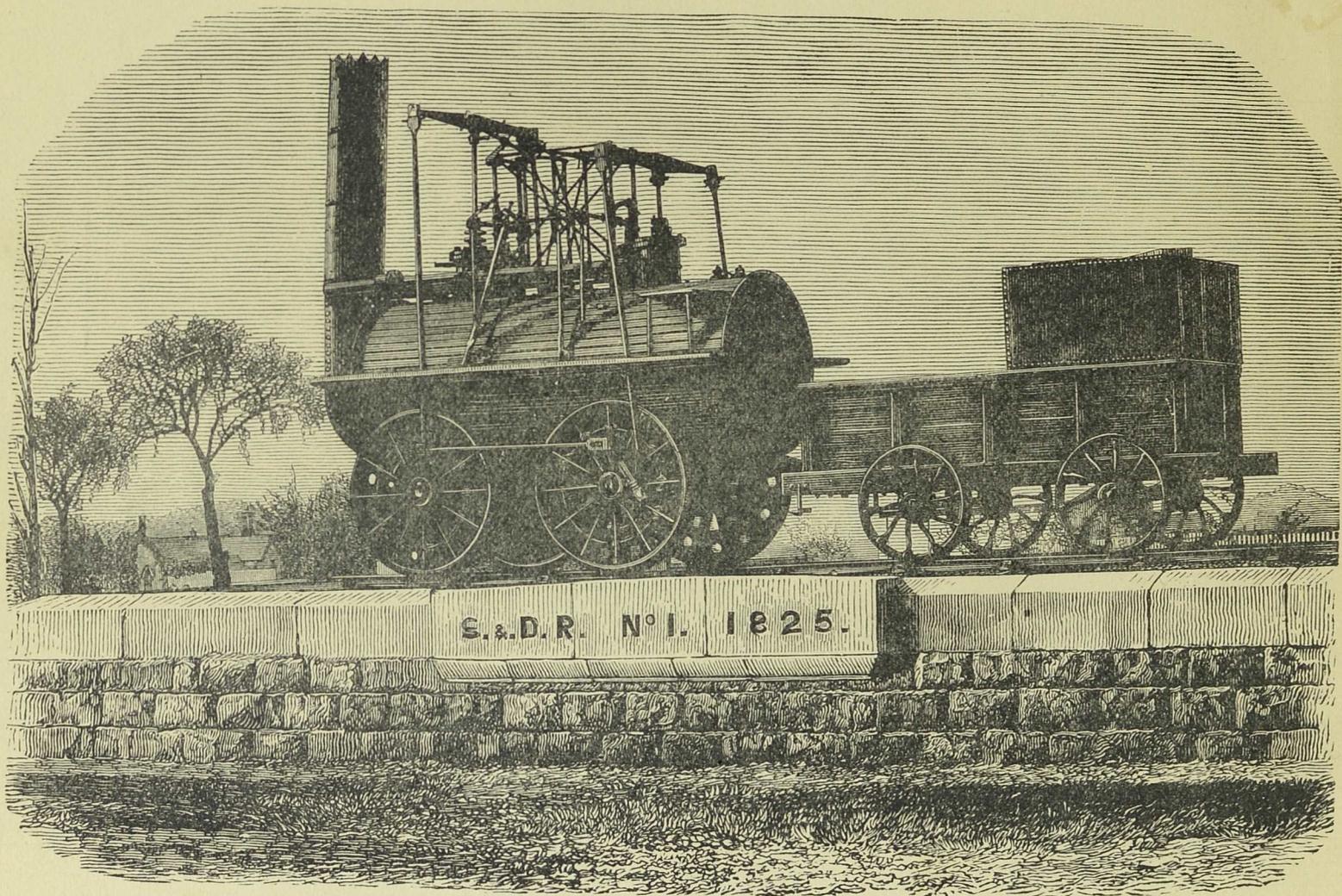
machines, and he did wonders with the steam-engine. Always remember James Watt, Harry, as one of the great men of whom we may be proud.



JAMES WATT

‘Then another was George Stephenson, who improved the railway steam-engine so much that he has been called

its father; and he and Edward Pease made one of the first railways in England; it ran between Stockton and Darlington, and was opened on September 27, 1825. The engines in those days, I have heard papa say,—for you know he is an engineer,—were very different from those we have now; they were not nearly so powerful,—and what do you think was the name of one of the very first—



ONE OF THE FIRST ENGINES ON THE STOCKTON AND DARLINGTON RAILWAY

even before the Stockton and Darlington Railway was built—it was called “Puffing Billy.”

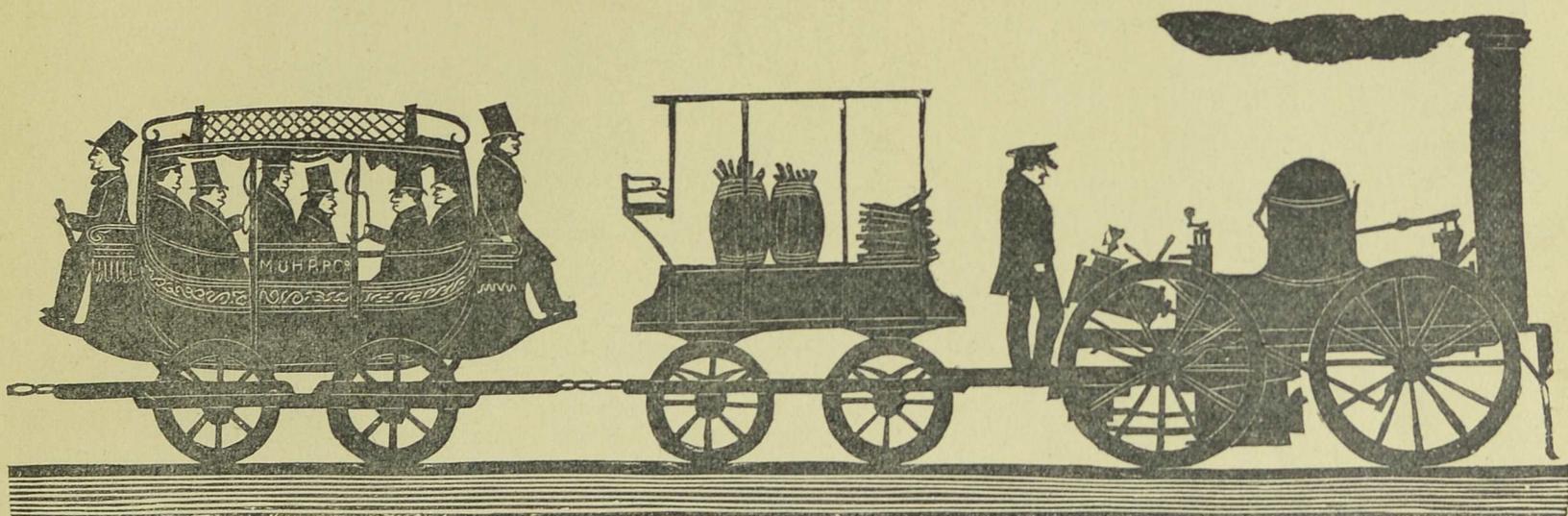
‘Oh, what a good name! and I ’spect it was called so because it did puff so much.’

‘Yes, that was it, Harry, I daresay. And it is now in South Kensington Museum, and we will go one day and see it. And in those early times the carriages were not very comfortable. In fact, they were often old stage

coaches placed on railway wheels. When the railway between Liverpool and Manchester was opened, in 1830, its first-class carriages were made like three coaches in one, and with seats outside; while second-class coaches had frequently a light roof only over them,—and the dust was so great, as the train hurried along, that passengers had often to travel with their eyes shut.’

‘Oh, I should not like that!’ exclaimed Harry; ‘I should like to look out of the windows.’

‘So some seem to have thought in those days, for a special kind of wire-gauze spectacles was made for



ONE OF THE FIRST TRAINS ON THE LIVERPOOL AND MANCHESTER RAILWAY, ABOUT 1830

travellers to wear. The third-class coaches had no roof, and very often no seats.’

‘I should not have liked that at all,’ said Harry; ‘I am glad they make railway trains much more comfortable now, mamma.’

‘Yes, they have very much improved them. But it is tiresome to lose your ticket, Harry. When you go by train, you know, you have to buy a ticket, and the ticket-collector comes for it when you are near the end of the journey. “All tickets ready!” he cries, as he pops his head in at the window, and the people ought to have them ready, and give them up. Sometimes he does not ask for them until you get out at your station. And one



THE LOST TICKET

day I saw a little girl who had lost her ticket. "I can't find it anywhere," she said; "but I did have one."

"Well, then, you must pay again," said the collector. And the poor child looked so frightened, and faltered out that she had not enough money.'

'What did she do?' asked Harry. 'Did the collector put her into prison?'

'Oh no,' said his mother, smiling; 'the truth is, a lady in the carriage took pity on her and paid the fare for her.'

'Oh, mamma, I know that was you!' exclaimed Harry, after gazing at his mother's face earnestly for a minute. 'Was it not you?'

'Well, yes; I did pay the fare, Harry. Poor little thing, she was so frightened and distressed. Why, dear me! there is papa; I can hear his step in the hall. He will be able to tell you a great deal about trains.'

And the lady and her little son Harry hurried from the room.

'We have been talking about trains, papa,' cried Harry, after his father had been warmly welcomed by both mother and son. 'Mamma is going to take me by the real train to see you one day in the City, and you are going to tell me a real lot about them.'

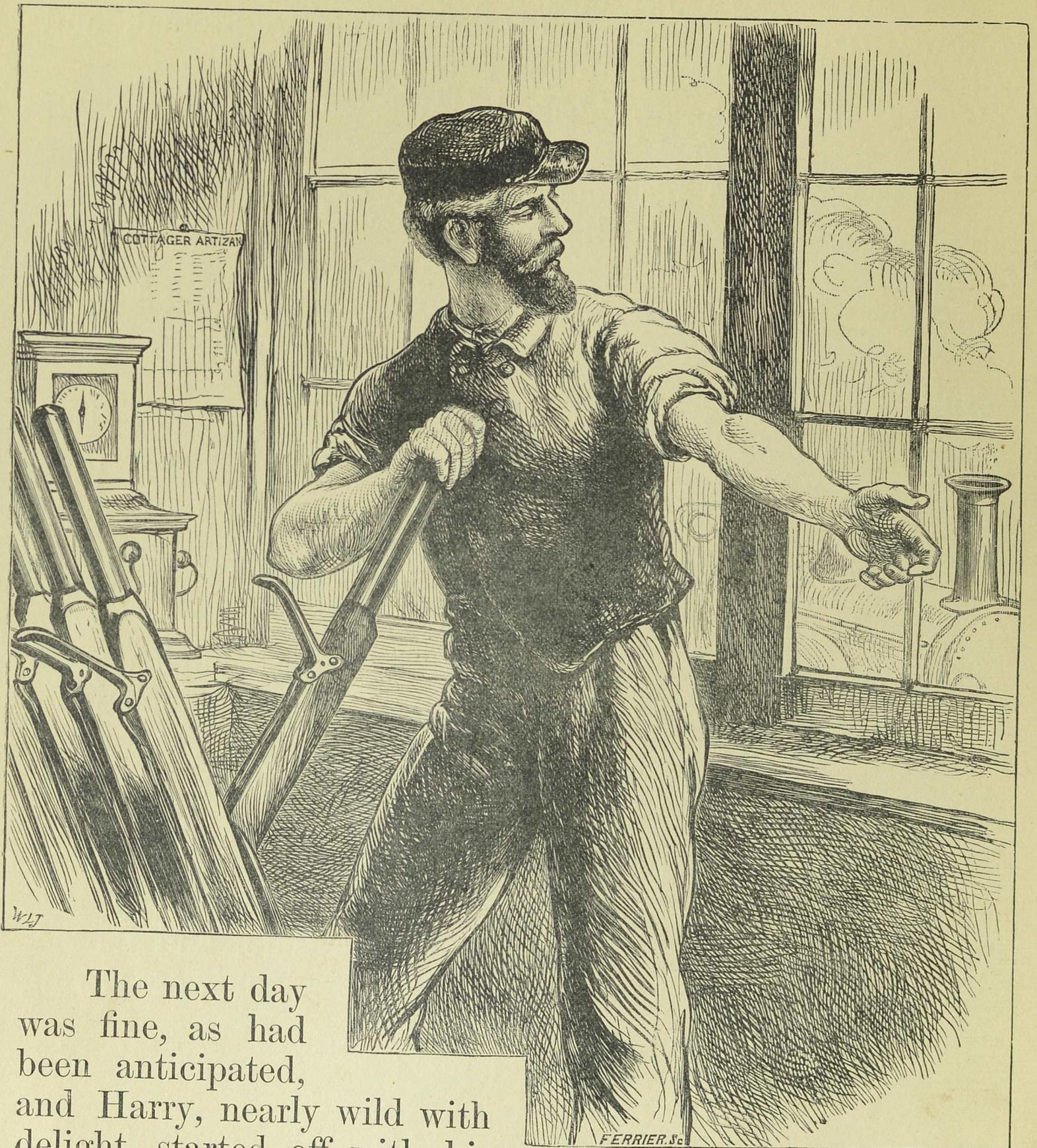
'Aha!' laughed his father; 'what do you want to go by the train for? Why, it was only the other day that we took you when we went to the seaside, and mother and I put your sister in the carriage while you were saying "good-bye" to Aunt Louie.'

'Oh, that was a long, long time ago, papa,' cried Harry; 'so long, I have almost forgotten it.'

'Oh, I have not,' laughed his father. 'But now, to-morrow will be a good day to come, if it is fine,—and I think it will be fine.'

'Yes, I think so,' agreed Harry's mother; and then

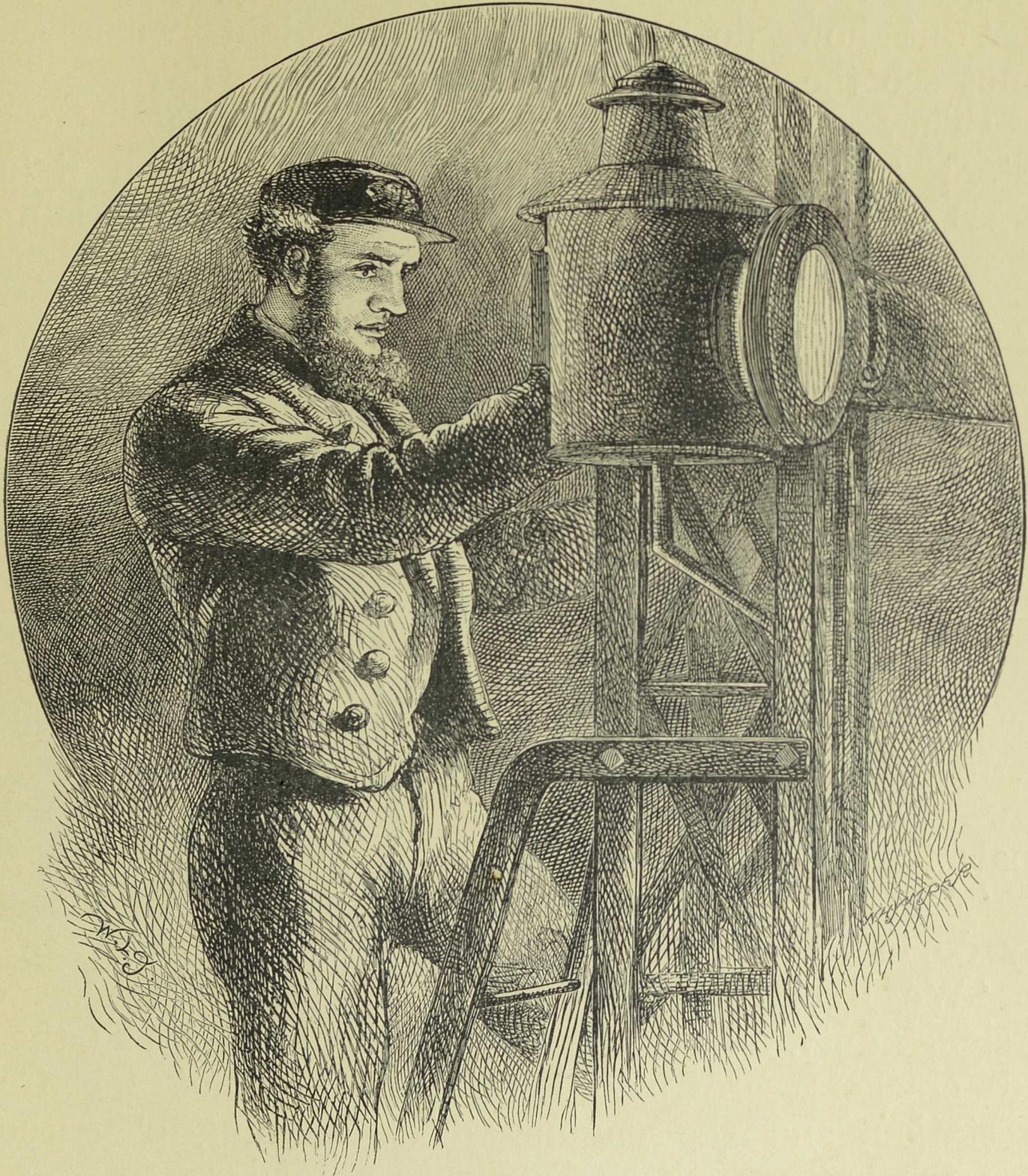
the talk turned to Sister Kate, who was now staying with Aunt Louie aforesaid.



The next day was fine, as had been anticipated, and Harry, nearly wild with delight, started off with his mother to the station. They just missed the train, and while waiting for the next the stationmaster (who knew Harry's father and mother

THE SIGNALMAN AT WORK

very well) took the boy up the steps of the signalbox,—for it was a very quiet station,—and let him see the signalman at work in the cabin.



LIGHTING THE SIGNAL LAMP

‘When the man pulls those handles,’ explained the stationmaster, ‘he alters the signal down the line by means of chains attached to the handles, so that the engine-driver knows whether to go on or to stop. That

great post down there is the signalpost, and the arms projecting are the signals. When they are stretched straight out they mean, "Stop; there's danger ahead." And when they go down they say, "All right; go on."

'But how do they manage at night, when they cannot see the stretched-out arms?' asked Harry.

'They see lamps instead,' explained the stationmaster; 'and these lamps show red and green lights. Glasses coloured in this way are placed before the lamps, and move when the projecting arm moves, as the signalling levers, or handles, are pulled in the signalbox. A red light means "danger," and a green "caution," or "go slowly." One of our porters—the lamp-porter—has to walk beside the railway line to the signalpost, and climb up the slender iron ladder fixed against it, and light the lamp when twilight comes on.'

'And what is that thing there—something like a clock face?' inquired Harry.

'That is the telegraph dial,' said the stationmaster, 'for news of the trains is telegraphed from one signalbox to another, and the signalman knows—or ought to know—what is coming along the line, and works his signals for the engine-drivers to see accordingly.'

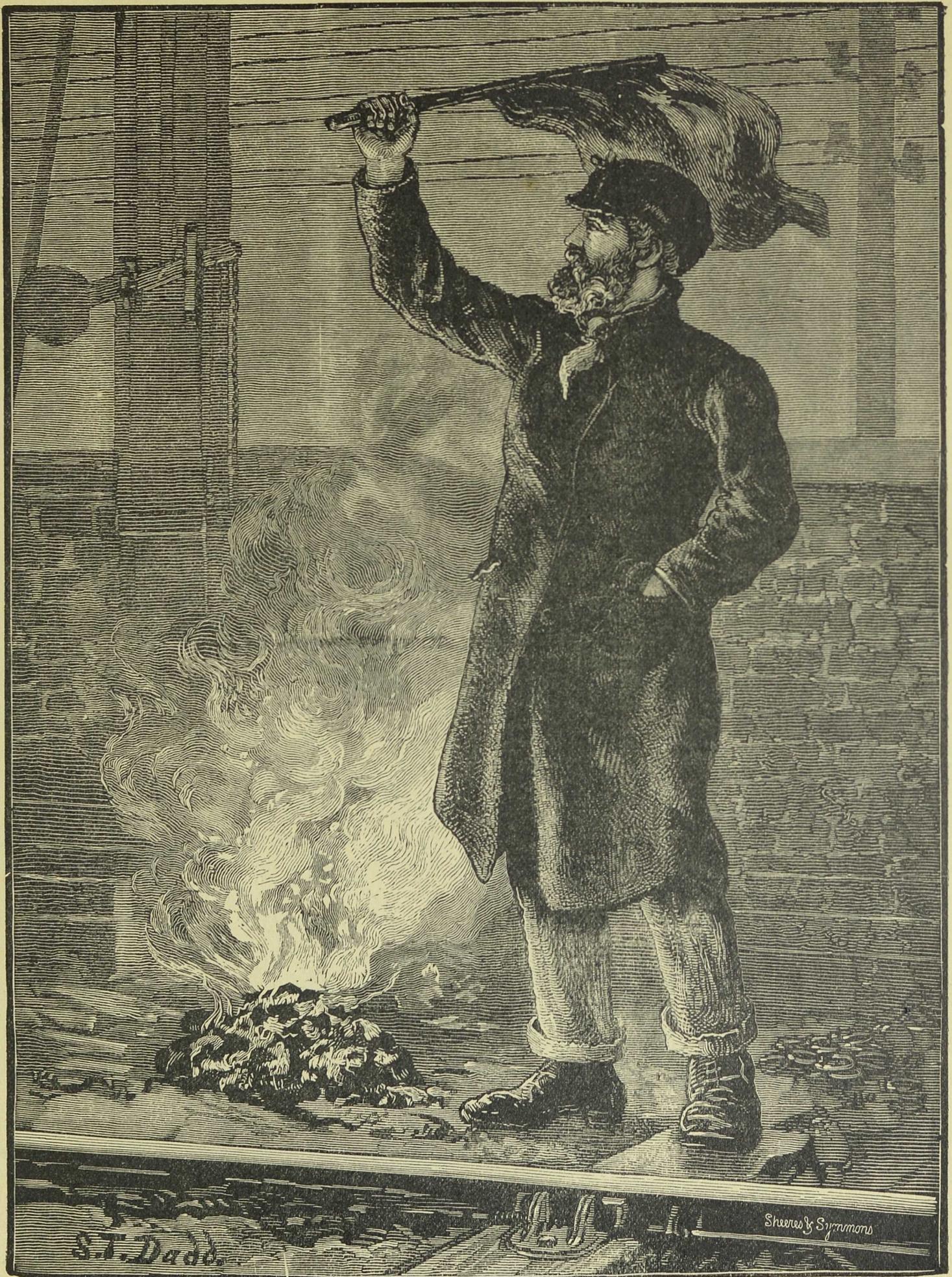
'And in the fog?' asked Harry again; 'what do they do in the fog?'

'We light fires beside the line, and put men on fog-signal duty. Detonators—or, as you might call them, loud crackers—are placed on the rails not far from the station, and the engine wheels running over them cause the crackers to explode with a loud report.'

'Oh yes, I have heard them sometimes; they do make a noise,' cried Harry. 'And what do you call those pieces of wood on which the rails are placed?'

'They are called sleepers.'

'What a funny name! that is because they always



SIGNALLING IN THE FOG

lie still,—asleep, I suppose,' laughed Harry. 'And those iron things holding the rails on the sleepers—what are they called?'

'They are chairs, and hold the rails quite tight.'

'That is because the rails sit in them, isn't it?' said the boy merrily. Then, changing his tone, he added, 'I was going to ask you—what does the engine-driver do when there's danger ahead, and the signal says stop, and he is going along at full speed?'

'Then he has to turn off steam sharp, and reverse the engine, to try and make it go backward; and the fireman screws down the brakes—hard. They are great blocks of wood fitting tight to the wheels, and the handle which the fireman works causes these blocks to be pressed hard on the wheels, and prevents them running round, and forces them close to the rails. Sometimes the pressure and the friction are so great that the blocks become quite hot, and sparks fly off. Ha! here is your train signalled! Now, do you see, that arm at the signalpost, instead of barring the way, hangs down as though to say,—“All right; come on.”'

'Oh yes, I do see it,' cried Harry. 'And did that signalman move that arm?'

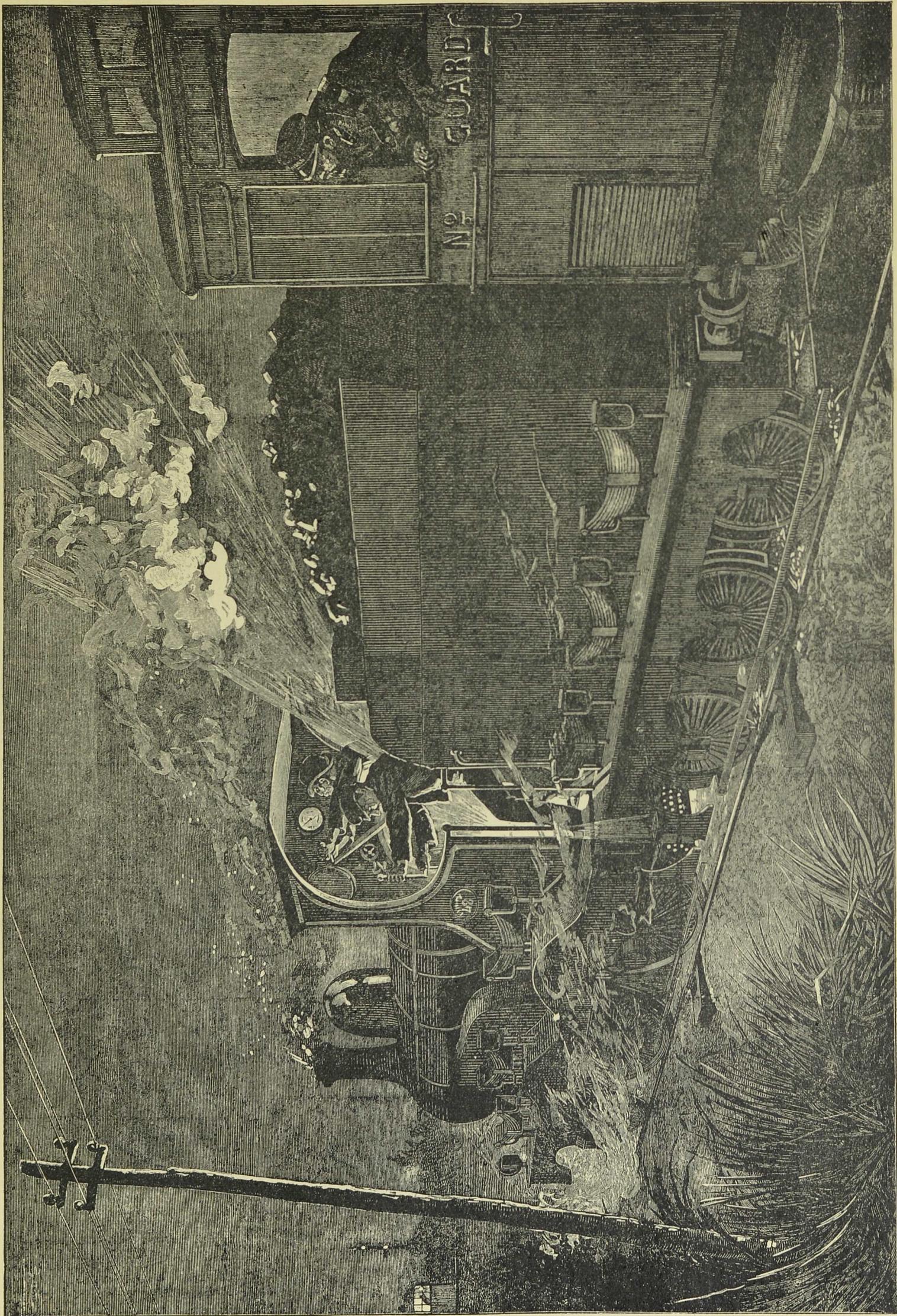
'Yes; he moved it with the lever, as I showed you.'

'Must we not be quick,' asked the boy, 'or we shall lose the train? Oh, I can see mamma on the platform.' And Harry waved his hand to his mother.

'We have time enough to walk back,' answered the stationmaster. 'Now we have been talking of signals, there is one more I can tell you about. When the train has to start in the dark, the guard holds up his lamp, and cries, “Right ahead!”'

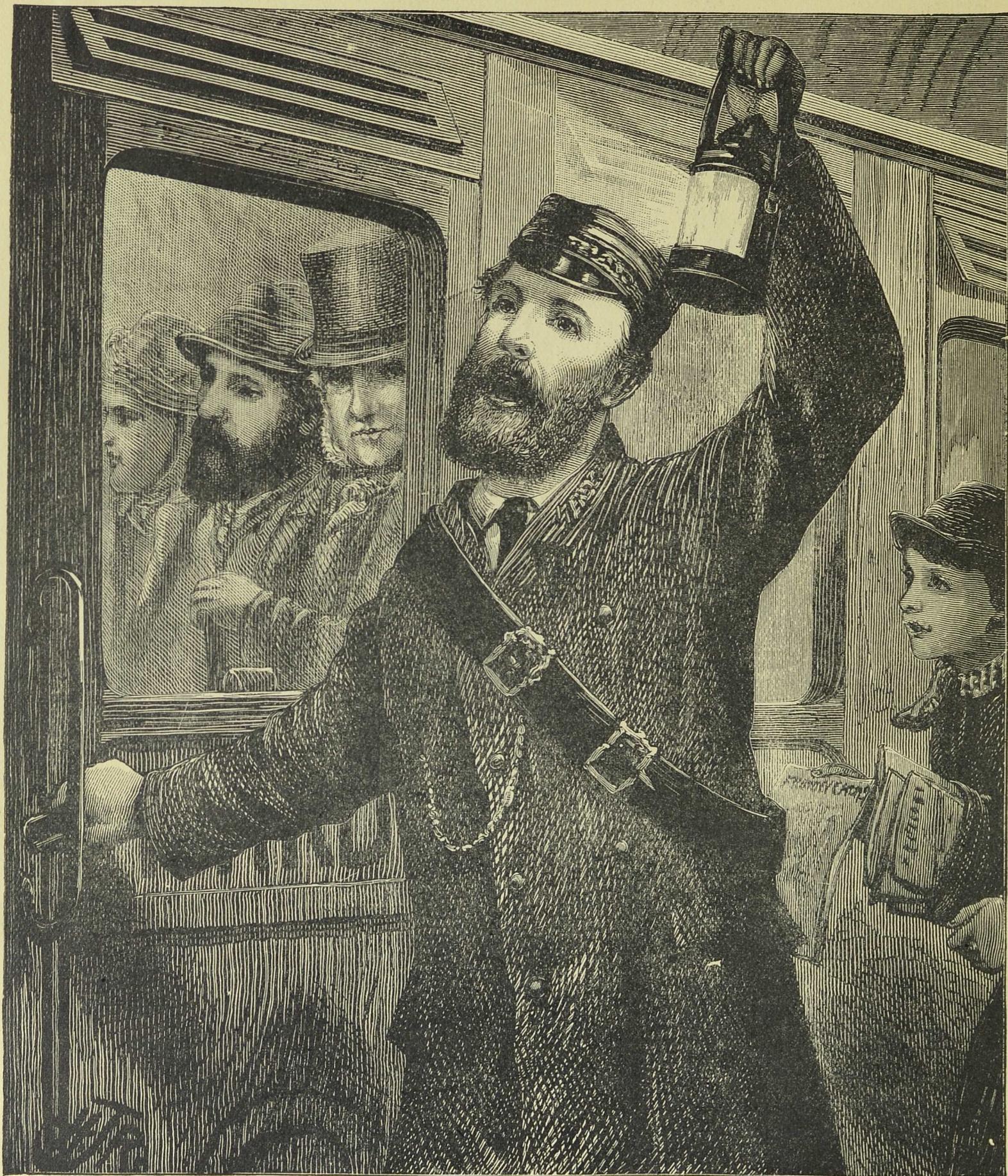
'Oh yes, I have heard him,' interrupted Harry. 'And does the guard's lamp show different colours?'

'Yes; the same as the long-distance signals we



DANGER AHEAD!

have been looking at. And we also signal by waving



STARTING THE TRAIN

coloured flags in the same way. Ha! here is the platform!

In a few moments more Harry and his mamma were seated in the train, and were being rapidly whirled up to the big terminus-station of the line in London.

‘How crowded the train is!’ exclaimed his mother presently. ‘We really had a difficulty in getting a seat. And did you see that sweet little baby-girl sitting on her mother’s knees in that carriage? We glanced into it, you know, when we were looking for a place. All the passengers seemed interested in the child.’

‘And she had a doll in her hands, mamma?’

‘Yes, dear.’

‘Perhaps she is going to see her papa, like I am.’

‘Well, perhaps she is, dear. I did not think of that.’

‘Oh, look, mamma, there is a kitty in that basket,’ cried Harry.

The train was now stopping at one of the stations on the way, and some little children were looking in at the open door at a cat, whose head was peeping out of a basket, and had attracted their attention.

‘The cat is getting out of the basket,’ they cried.

A little boy was carrying the basket on his knees, and pressed his hands on the flat lid to prevent the cat from escaping.

‘You will hurt the poor thing,’ said Harry’s mamma quietly. ‘Put its head back gently, and then shut the lid down firmly. Are you going to take it far?’

‘No, ma’am ; not far,’ answered the boy, as he looked up shyly, with wide-open eyes.

Then the guard, who had been standing by the door watching when all the passengers had entered the train, blew his whistle shrilly, and closed the door with a bang.

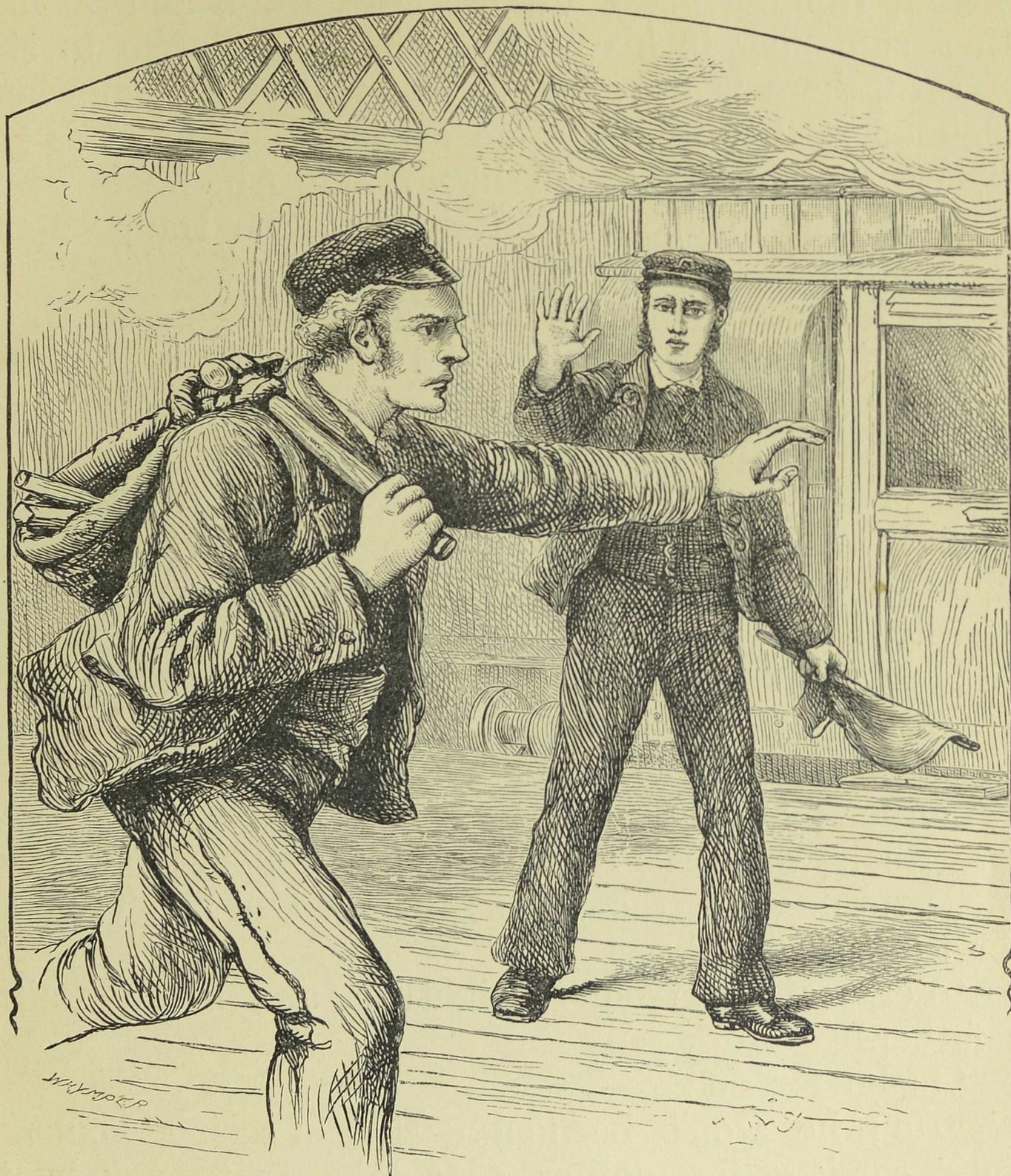
The boy’s sister, who was sitting next him, helped



'THE CAT IS GETTING OUT,' THEY CRIED

him to put back the cat into the basket; and the train

sped on its way, with a roar and a rumble such as trains make when running full speed ahead, and the noise hindered further conversation.



'JUST TOO LATE!'

But soon the train stopped at another station, and the children with the cat alighted from the carriage. Then, just as the train was moving on again—it had begun to move, indeed—there were loud cries of—

‘Just too late! Stand back! stand back!’

And, looking out of the window, Harry and his mamma saw a carpenter, with his bag of tools over his shoulder, running hard towards the train, and a man, with a signalflag in his hand, calling out to him to stop.

‘Ha, there is generally a late passenger somewhere,’ exclaimed a man in the same carriage. ‘And it is very risky to run for the train like that. Ah, he is giving up now. That is best. Getting into the train when it is in motion is very dangerous.’

No further incident happened of any note to Harry, though he was interested in all that he saw. But when he and his mamma reached the great terminus, where long-distance trains for or from the seaside and the depths of the country are more or less constantly departing and arriving all through the day, they noticed a bright-looking little girl, all alone, sitting on a big trunk, and with other boxes and bags near her.

‘Oh, mamma, what is she doing there?’ asked Harry. ‘Is she lost?’

‘No; I expect she is minding the luggage,’ answered his mother. ‘She seems very happy over it, does she not? Shall we speak to her? Well, my dear,’ she continued, turning to the little girl, ‘and are you looking after the luggage?’

‘Yes,’ said the child brightly; ‘and I am waiting for father.’

‘Is he far off?’

‘No; he won’t be long. He is seeing about an invalid carriage for mother. He told me to stay by the luggage, and he should know where I was, and the luggage too.’

‘Is your mother very ill, dear?’

‘Oh no; she is much better now,—and she is going to get quite well in the country.’

‘I hope so,’ said Harry’s mamma. ‘Good-bye, dear.’
‘Once,’ she said to Harry, as mother and son walked on out of the station, ‘I remember two little girls who were lost at a large railway terminus. They stood by the luggage when it was taken out of the train,



‘HE TOLD ME TO STAY BY THE LUGGAGE’

and the guard—he was a very kind man—told the bystanders that the children’s parents were dead, and the little girls had been given into his care at a station—a very long distance from London, and that someone would claim them at the London terminus. But no one came!



'AT LAST THE GUARD TOOK THEM'

And the guard did not know at first what to do with them.

“This is a strange kind of lost luggage,” said he. “What is to be done with the children?”

‘Well, one person said one thing and another said something else, and at last the guard took them and their box to the stationmaster’s office, and somebody got them some milk to drink and buns to eat’—

‘Oh, I know that it was you, mother!’ interrupted Harry.

‘No, it was not, dear,’ replied his mother; ‘and the kind lady stayed with the children for nearly an hour, then she was obliged to go home, and she promised she would call for them afterwards; but we never saw her again.’

‘You never saw her again!’ exclaimed Harry in surprise.

‘Yes; for who do you think were the lost children?’ asked his mother.

‘I don’t know at all,’ said Harry, with eyes opened wide.

‘Your mother and Aunt Louie,’ replied the lady.

‘Oh, mother! and didn’t you feel frightened?’

‘No; everybody was so kind, and our uncle and aunt soon came. They had been detained by an omnibus breaking down. That is Uncle and Aunt Baxter, whom you know.’

‘Oh, poor mamma, to be lost!’ exclaimed Harry, looking at his mother tearfully.

‘We were soon found,’ she answered briskly; ‘and now I have a dear little son and a daughter of my own, you see, and yet I remember being lost as if it were only yesterday. Now, I hope papa will be in his office. I think he will, because he expects us about this time.’

Papa was quite ready to receive them, and Harry was much interested in looking at different things in the

office, and then they went out and saw some of the wonderful sights of London City.

‘Suppose we do that to-day,’ said his mother, ‘and get papa to take us on a steamboat another day.’

And then, when evening was coming on, they returned to the station to go home. They had a short time to wait, so Harry stood on the platform and looked at the engine.

‘Do you like being on an engine?’ he asked one of the men.

The driver seemed amused at the question, and answered, ‘Oh yes, it is very nice.’

‘What do you do when you want the engine to go on?’

‘We turn this big handle here, and we call that opening the throttle.’

‘What funny names you have! Does that handle set the steam puffing?’ The man nodded. ‘I should like to be on an engine!’ exclaimed Harry.

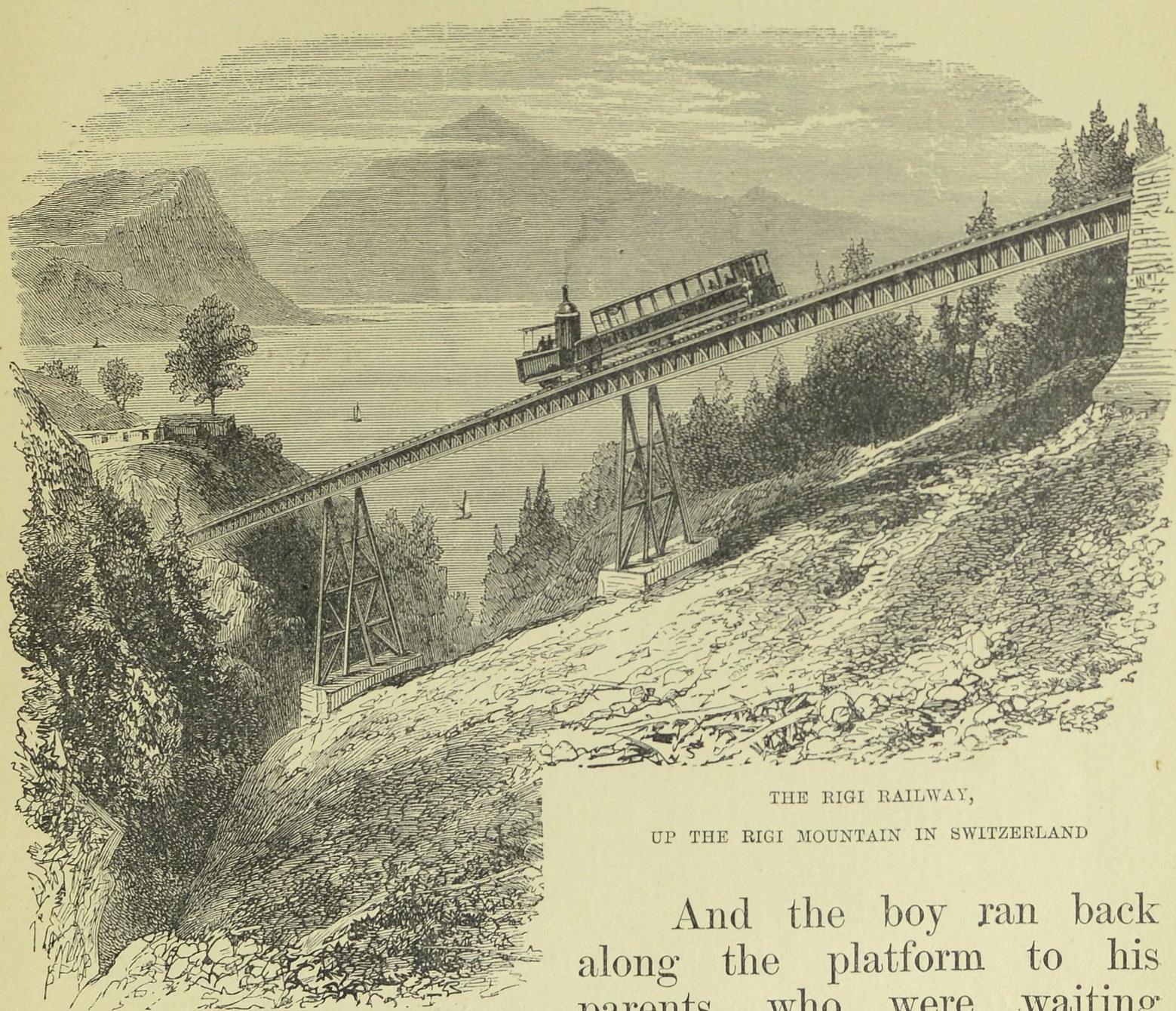
‘Not at holiday times, I think.’

‘Now,’ said the driver, ‘I was on this engine on Christmas Eve, when, I expect, you had a fine time at home. My mate and I, we tied up a bit of holly on the cab,—we call this covered-over part the cab,—and, standing on the footplate by the fire, we tried to talk about Christmas now and again. I had a Santa Claus doll, or an Old Father Christmas, in my pocket for my youngsters at home, and one or two other presents, and the doll showed up quite plain in the firelight whenever the furnace door was opened for my mate to shovel on more coal, and it caught his eye, and I told him how I had bought it. So that was our Christmas Eve on the engine.’

‘With Santa Claus in the pocket,’ added Harry. ‘What is this big handle for on the side of the steps where you get on the engine?’

‘That is the brake. We screw it round when we want to put the brakes on and stop the train.’

‘Oh yes, I know; the stationmaster told me something about brakes,’ said Harry. ‘Oh, there is papa calling for me. Good-bye, Mr. Engineman!’



THE RIGI RAILWAY,
UP THE RIGI MOUNTAIN IN SWITZERLAND

And the boy ran back along the platform to his parents, who were waiting for him by the carriage they were about to enter.

‘Do trains ever run up mountains?’ he asked his father when, by and by, they were talking together at tea time at home.

‘Yes, there are a few,’ answered his father; ‘but they are very different from the trains we usually see here. The mountain trains have wheels with teeth

sticking out of them, and these teeth fit into a notched rail or rails, so that the train cannot slip back.'

'What a clever arrangement!' exclaimed Harry's mamma.

'There is a railway like that up the Rigi mountain,' continued his father, 'and also up Mont Cenis, and at Zermatt, all in Switzerland; and I believe there are several in America made in a similar manner.'

'Oh, I should like to go up a mountain on a railway!' exclaimed Harry; 'it does make your legs ache so much when you keep going uphill a long time.'

'Well, yes it does, old boy,' said his mother, smiling. 'I told father he would have to take me up the mountains by railway, for I could never toil up on foot.'

'Oh yes, mamma; and take me too, won't you?'

'When you are older, and have passed your examinations at school, we must see about it,' laughed his father. 'Well, what else do you want to know about railways? You know that in London we have a railway underground, but in New York, in the United States of America, they have one raised above the streets, and called the Elevated Railway. It runs along the principal streets, and is built on pillars of iron. An enormous number of people use it. The engine is covered up and made to look something like a carriage, so that, I suppose, it should not frighten horses.'

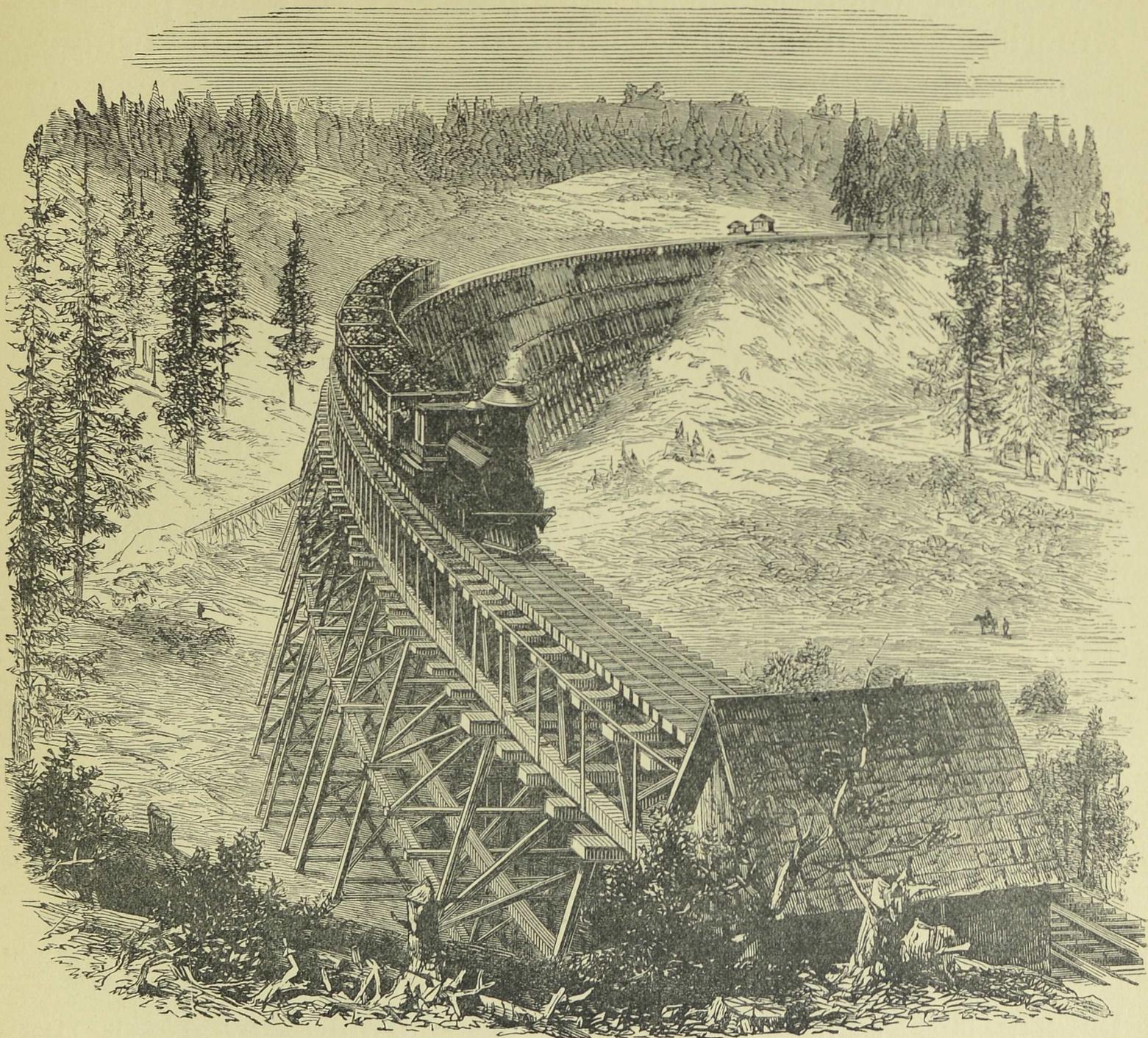
'How funny it would be to look out of the windows of the houses and see a railway running along just in front of you in the streets!' exclaimed Harry.

'Yes; and how unpleasant, if the passengers could look in at your upstairs windows and see what you were doing,' added his mother. 'I should not like that.'

'Well, our great city railway in London runs underground, and is the most expensive railway in the

world,' said his father. 'Some parts of the railway cost nearly a million pounds a mile, including the purchase of the land.'

'Oh, what a lot of money!' exclaimed Harry.



A TRESTLE BRIDGE IN THE UNITED STATES

'And did the men dig out a big hole for the railway under the streets?'

'Yes; and lined the hole, as you call it, with white-faced bricks to keep up the roof.'

'Well,' said his father, 'I was telling you about the Elevated Railway in New York. But, of course, all

the American railways are not built upon iron poles like that. In the long-distance American railways, however, where they have to cross wide valleys, sometimes long trestle bridges or viaducts of timber are made—for wood is cheap and plentiful in some parts of America. And so they build up long wooden bridges across the valleys — something after the manner of certain wooden piers at our seaside places;—you remember the wooden pier-head at Southend, Harry?’

‘Oh yes, father. I liked going to Southend; and I tried to catch fish on the pier; mamma said I might go on a steamboat again soon, so would you take us to Southend one day, father?’

‘Well, I will make a bargain with you,’ said his father, smiling. ‘When you know the multiplication table quite perfectly up to twenty times, and can say all your Latin declensions without a mistake—then I will take you.’

‘Oh, that is too hard, father! but I really am getting on with my tables, and my Latin too. And what else did you see in America on the railways, father, when you were there?’

‘They have dining carriages, you know, on trains that go a long distance. They are called Pullman dining-cars, and they have negro waiters.’

‘What, all black men, father?’

‘Yes; and you can sit comfortably at your ease before the table, and order your dinner or read the paper as though you were in your dining-room at home. Then in some of the cars are beds where you can go to sleep.’

‘That would be funny—to go to bed in a railway train.’

‘We in England have sleeping-cars and dining saloons now on some of our long-distance railway

trains,' said his father. 'Thus, if you wanted to journey to Liverpool, for instance, by the night train, you could tuck yourself up in your sheets at London and wake in the great town on the Mersey, bright and early next morning. You know what the great town on the Mersey is?'



A PULLMAN DINING-CAR

'Liverpool, you mean!' exclaimed Harry. 'Yes, father; and could you get dinners on trains too?'

'Yes; if you went to Scotland too, you could sleep at night; or if you went to Liverpool, or Manchester, or Scotland, by day, you could get dinner in the train.'

‘And are they ’spress trains, father?’

‘Yes, they run very fast. Some of our trains in Great Britain are very fast indeed. The Great Northern, for instance, has trains which run every day from London to Grantham, $105\frac{1}{4}$ miles, in 115 minutes; the Great Western has rushed from Plymouth to Paddington, a distance of 247 miles, in 267 minutes; the North-Western has hurried from Euston to Carlisle without a stoppage, a distance of over 300 miles, in 353 minutes.’

‘Without stopping once, father?’

‘Yes, without stopping once;—that was in September 1895. But the North-Western trains run many times every day to Manchester from London, $183\frac{1}{2}$ miles, in $4\frac{1}{4}$ hours, and stopping, too, at several stations. And they tear along to Liverpool also in quite as good time. The North-Western Company, with their partners, the Caledonian Company, known as the West Coast Route, have run from London to Edinburgh, 400 miles, in 427 minutes; while the Great Northern Company and their partners, the North-Eastern and the North British Companies, have run to Edinburgh from London, 393 miles, in 423 minutes. There is express speed for you, Harry; you could not see the wheels of those trains go round, I am sure!’

‘Why?—because they would go so fast, father?’

‘Yes, that is the reason. I know I cannot see clearly the bicycle wheels go round when they go very fast.’

‘How fast do you think an engine can run, father?’

‘Their speed is faster on levels, or on gradually sloping ground, than on steeper slopes, as you may suppose, Harry; and it is said that the speed of such express trains as I have been describing to you reaches sometimes seventy or seventy-six miles an hour on easy ground. But the evenness of the railway has much

to do with fine speeds. Now, the Midland Railway—you remember the Midland, Harry, with its red engines and red carriages?—has a hard road,—up-hill-and-down-dale sort of track,—yet its powerful engines whirl its trains from Leicester to London, $99\frac{3}{4}$ miles, in 122 minutes. Then several of the other lines have also very speedy express trains running. Our American cousins also have some very fast express trains. There is the Empire State Express on the New York Central line, running from New York to Buffalo; it covers 140 miles in about 160 minutes, and for 80 miles of the distance its speed is $56\frac{3}{4}$ miles per hour.

‘But in October 1895 a Lake Shore special train ran from Chicago to Buffalo, a distance of $510\frac{1}{10}$ miles, in 481 minutes 7 seconds, including more than twenty stoppages to change engines, and at drawbridges and level-crossings. Excluding stoppages, its average was 65 miles an hour, or more than a mile a minute. This, of course, was a special occasion. Now, the average everyday speed of our best British express trains is about fifty-two miles an hour, and in order to accomplish this they will probably run some part, or parts, of the journey at seventy or even seventy-six miles an hour.’

‘Oh, how terribly fast!’ exclaimed Harry.

‘Yes; the carriage rocks from side to side, and the telegraph poles fly by one after the other almost as fast as you can blink your eyes.’

‘There is a story I have heard about one of our English officers in the army. He lost the train one evening at Stirling, in Scotland, and he was obliged to report himself at headquarters, in London, next morning. Now what do you think he did?’

‘I don’t know,’ said Harry. ‘I can’t guess.’

‘Do you think he whined, or began to cry, or flew

into a rage? No; he ordered a special train, which tore over the rails to Carlisle, a distance of 118 miles, in 126 minutes, and caught up the mail train at Carlisle which he had lost at Stirling.'

'Oh, that was clever of him!'

'And of the engineers who build such wonderful engines. Then here is something else interesting. Do you think trains could flash along as fast as fire?'

No; Harry did not think that.

'Yes,' said his father, 'and it is in this way. You know that when the Spanish Armada threatened to invade England, in the days of Elizabeth, our sturdy forefathers lit up fires on the hill-tops to arouse the country, and the spot for one fire was in the sight of the spot for the next, so that when the watchers saw the beacon blaze on one hill they lit up their fire, and so the land was speedily covered by these bright blazes from Plymouth to Carlisle.'

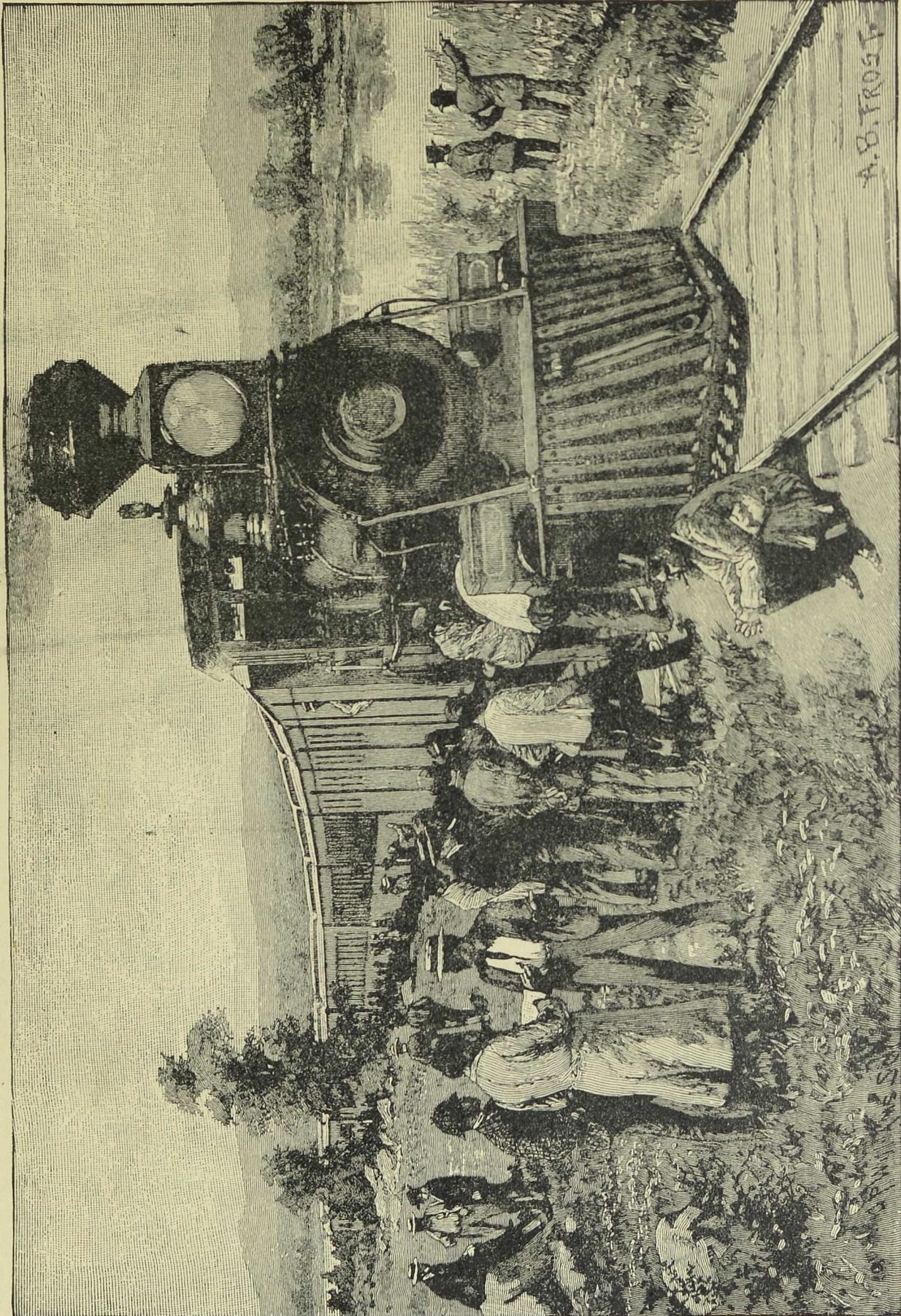
'Now, a clever man, Mr. Foxwell, has calculated that a messenger could carry the news himself that distance, travelling by express trains, quite as soon as these fires could flash it from beacon to beacon throughout the land,—that is, in a few hours.'

'And it could be done faster still by electric telegraph,' said mamma.

'The signalmen have electric telegraphs in their cabins,' remarked Harry; 'I saw one this afternoon.'

'The telegraph assists the safe working of the trains wonderfully,' added his father; 'and if an engine broke down, I suppose news would be conveyed to the nearest signal-station, and the signalman could telegraph for another engine and for help. But in America the distances over the western prairies are too long for such methods; so, in case of a breakdown on an American railway over the prairies, the engine-driver and his mate

have to cobble up the machinery, and the passengers all get out of the train and look about them. But they



A BREAKDOWN ON AN AMERICAN RAILWAY ACROSS THE PRAIRIES

must not wander too far, or they may get left behind. For the guard or conductor of the cars rings a bell and

cries out, "All aboard," and the train starts again at once. And if an unfortunate passenger has gone too far away he is left behind in the wide and lonely expanse.'

'Oh, how dreadful!' cried Harry. 'And what does he do?'

'The best he can,' replied his father. 'Perhaps he makes his way to the next station by slow and painful degrees; the line would show him the way, but he must be careful not to be knocked down by the cow-catcher of the engine of the next train.'

'The cow-catcher! What a funny name! Whatever is that, father?'

'A projection of iron-work sloping forward in front of the wheels of the engine, to clear away anything from the railway. As, I suppose, cattle frequently stray on the line when crossing the prairies, and these projections remove them from the track, they are called cow-catchers.'

'It would kill a man if it hit him?' said Harry. 'You were never left behind on the prairie, were you, father?'

'No; I was mindful of the ringing of the bell. I did not care to be left all alone on the plain. Then the conductor comes round the cars, and examines all the tickets, and hears complaints. If anything is wrong, he has to bear the brunt of the grumbling. If passengers are in a superior car, they have to pay extra. There is the nervous old lady who has a free pass, perhaps, for part of the way, and is anxious to explain the matter copiously, and with much talk, to the conductor; while he, heedless of the stream of words, reads the paper granting her the pass, and attending only to the conditions set forth there. Meantime an old lady on the other side, who knows she will have to pay extra, is fumbling in her

purse for the money; while a man, who suffers much from indigestion, is complaining bitterly about the food, or maybe the ice-water supplied.'

'Ice-water!' exclaimed Harry. 'What is that for?'

'With ice-water the passengers can have cool drinks in the hot weather. You see, a person travelling across the American Continent may take about five days for the journey, and the passengers want all the comforts possible under the circumstances. I have heard of a



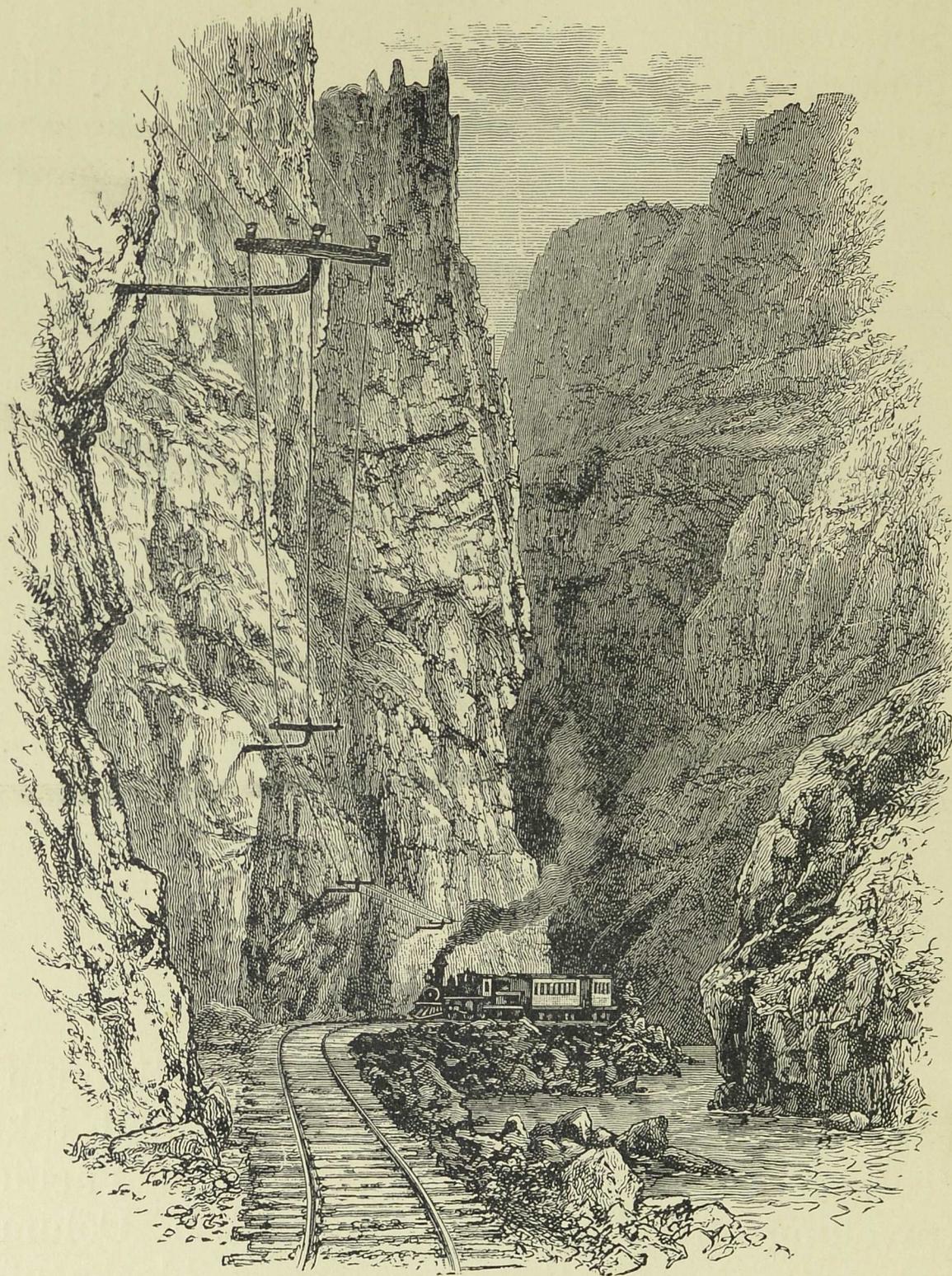
A RAILWAY CONDUCTOR IN THE UNITED STATES

little boy who became quite sick and ill through being shaken about for so long in the train, and taking so much ice-water. He was on the Canadian Pacific Railway, travelling from a town in British Columbia to Montreal, I think, and there were great blocks of ice in the train, to supply passengers with fresh and cool water.'

'And did the little boy get well, father?'

'Oh yes, he soon got well, when he arrived at his destination, and left the train. And his parents were

with him to take care of him. I may tell you, too, that some of the large drawing-room and dining-room cars made by the Pullman and Wagner Companies are most luxurious, and extra fares are charged.'



AN AMERICAN TRAIN PASSING THROUGH A CAÑON

'What a lot of different things the passengers must see from the windows, father, as they go right across America!'

‘Yes; the train passes through a great variety of scenery—sometimes over level prairies, and sometimes through deep, rocky gorges through the mountains, called cañons, and pronounced canyons. The telegraph wires run along the side of the rocky walls, which are very steep—almost perpendicular, in fact.

‘Then, in winter time, such heavy falls of snow block the track on some of the more northerly American railways, that snowploughs have to be sent out to clear the way for the trains. The snowplough is like a great edged and pointed shield, but sloping forward at the bottom part, and with two sides sloping backwards from the edge in the centre—something like the bows of a boat, only with the bottom part of the bow pushed forward. The plough, driven by powerful engines, sheers away the deep snow on either side, and clears it away from the rails. Snowploughs have also to be used in England and Scotland sometimes, when the fall of snow is very heavy.

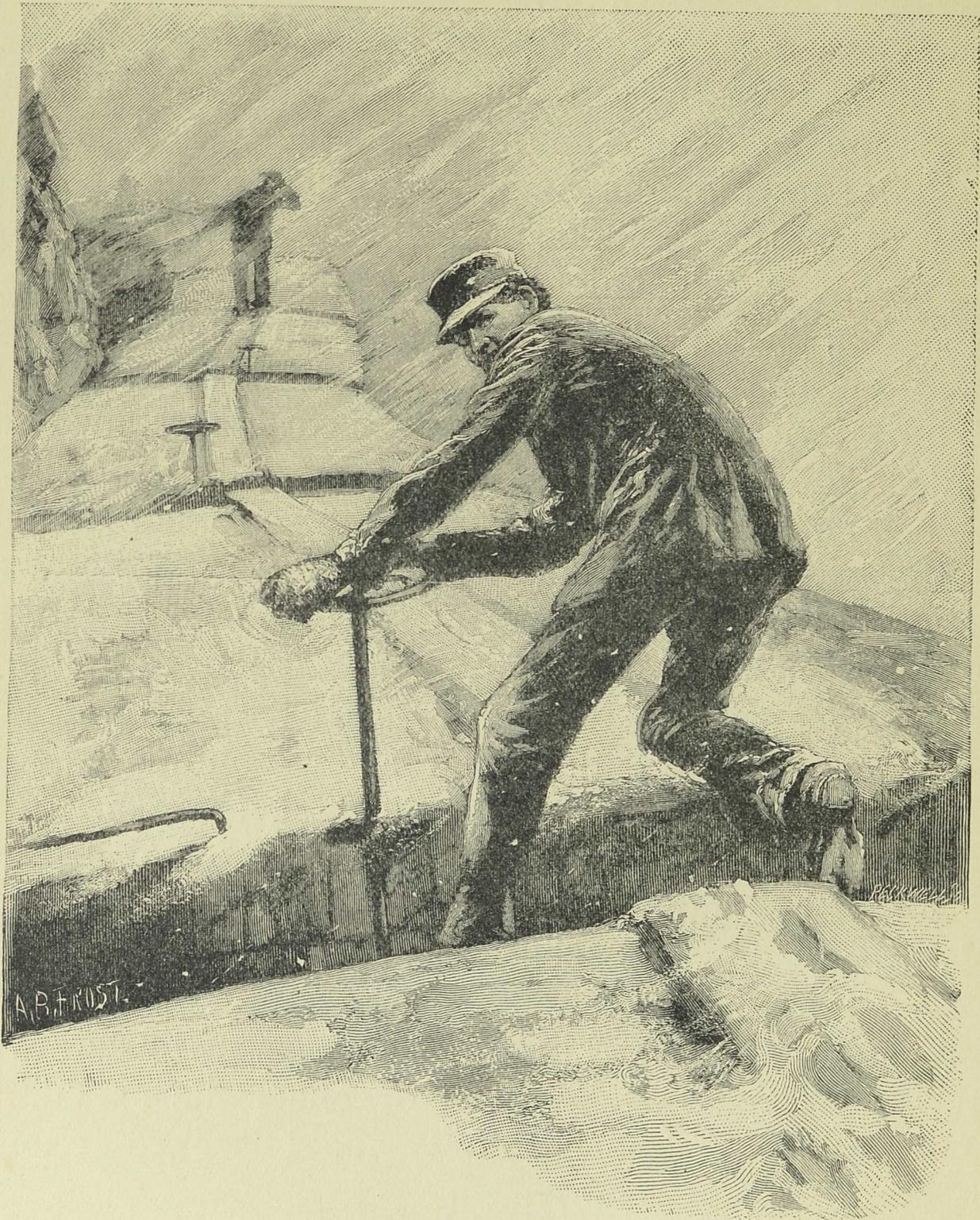
‘Snowy weather in the United States gives some very trying work to the guards, or conductors, of the freight trains—or, as we should call them in Britain, the goods trains. The goods, or freight cars, are roofed over, and the handles putting on the brakes to the wheels are outside the tops of the cars; so the conductors have to climb out of their carriage, and mount to the top of the cars in the blinding snowstorm, to screw down the brakes, and stop the train or check its speed.’

‘That would be dreffully cold work,’ exclaimed Harry, with a mimic shiver.

‘Colder than getting up in the frosty mornings at seven o’clock at home,’ said his mother, smiling. ‘The railway guards do not cry, do they, father, when they have to climb to the carriage tops in a blizzard, as I know a little boy cried at the cold?’

‘Oh, mamma, that was ever so long ago, when I was a very little boy!’ cried Harry. ‘I do not cry now at the cold.’

‘Well, some of those blizzards, or terrible snowstorms,



PUTTING ON THE BRAKES OF A FREIGHT TRAIN IN WINTER, UNITED STATES

in the United States are very severe, I can tell you,’ said his father; ‘but I am sure the conductors do not cry like little children, who cannot bear the cold.’

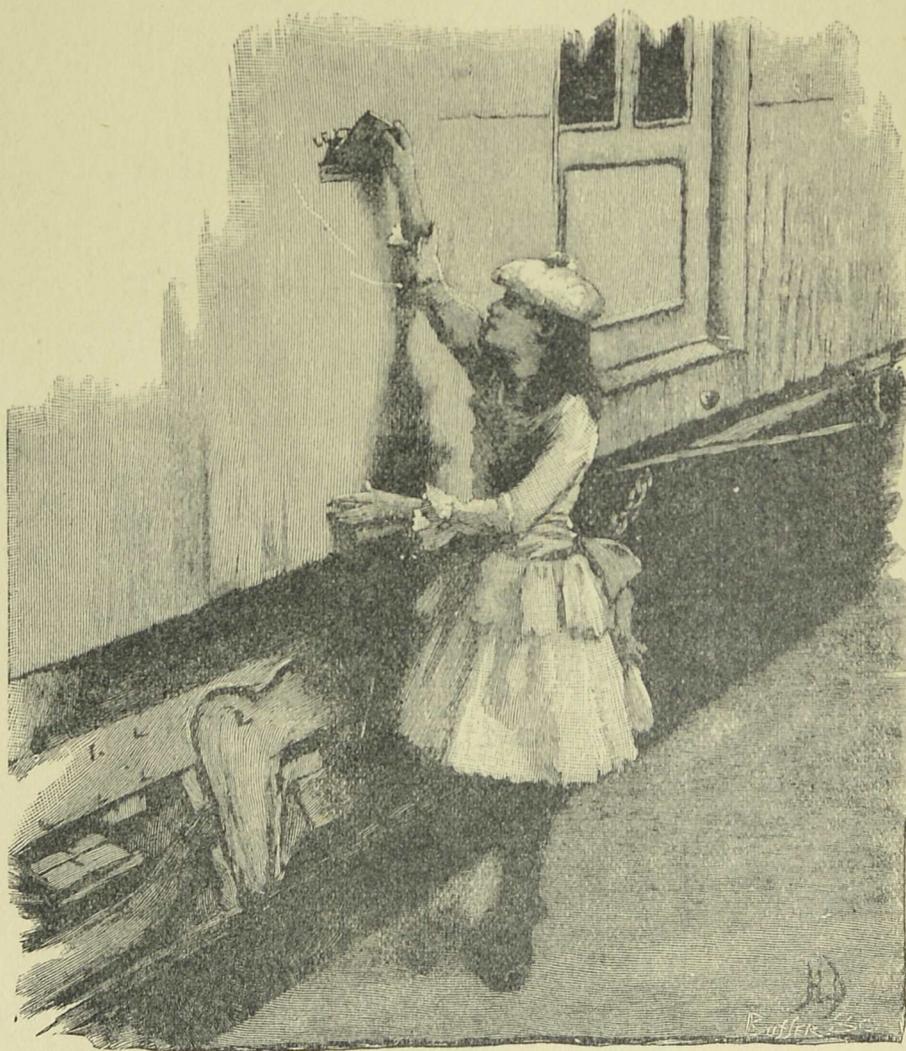
‘Oh, father, do not talk like that; I do not cry at

the cold now. Have you not something else you can tell me about the American trains?’

‘Ha! that is a pleasanter subject,—is it not, Harry? Well, I saw a little girl posting a letter at a railway post-office. You can pop in a letter at the last moment to save the post, and the train goes whirling away on its long journey. You know, we have travelling post-offices here in Britain, and a number of letters are sorted in the mail-train vans as they go flying over the rails; and the bag for Buckingham, we will say, is thrown out as the train passes, and an iron arm and net projecting from the van sweeps another bag off a pole on the platform into the train as it races along. So, you see, there is no loss of time over that business.’

‘I should be afraid it would hurt something, father?’ said Harry.

‘No; it is all arranged so cleverly that it usually works quite smoothly,’ answered his father. ‘There are a great number of other interesting and wonderful things connected with railways that you will like to see and hear about when you grow older. Meantime, as it is getting rather late to-night for little boys, I expect mamma wants you to go off to bed.’



THE LAST MOMENT—RAILWAY POST OFFICE, UNITED STATES

‘Yes, indeed; or we shall see very tired eyes and pale cheeks to-morrow morning,’ said mamma. ‘So good-night, Harry, and you shall go on board a steamboat another day.’

CHAPTER II

A TRIP BY STEAMER, WITH A CHAT ABOUT VESSELS ALL OVER THE WORLD

ONE beautiful, bright summer morning little Harry found himself on board a fine steamer on the Thames, at London Bridge, bound for Southend. The steamer was called the *Victoria*, after her gracious Majesty the Queen. There was a capital band on the deck, playing delightful music, and everybody seemed very happy. Harry trotted about, and enjoyed himself immensely.

‘What is this for, papa?’ he asked, tapping the great round pipe rising up from the centre of the steamer.

‘That is the chimney of the furnaces. It carries off the smoke from the fires, and creates a draught like a chimney to a grate in the house, so that the fires burn well. But we do not call it a chimney on the steamer,—that would never do,—it is called the funnel.’

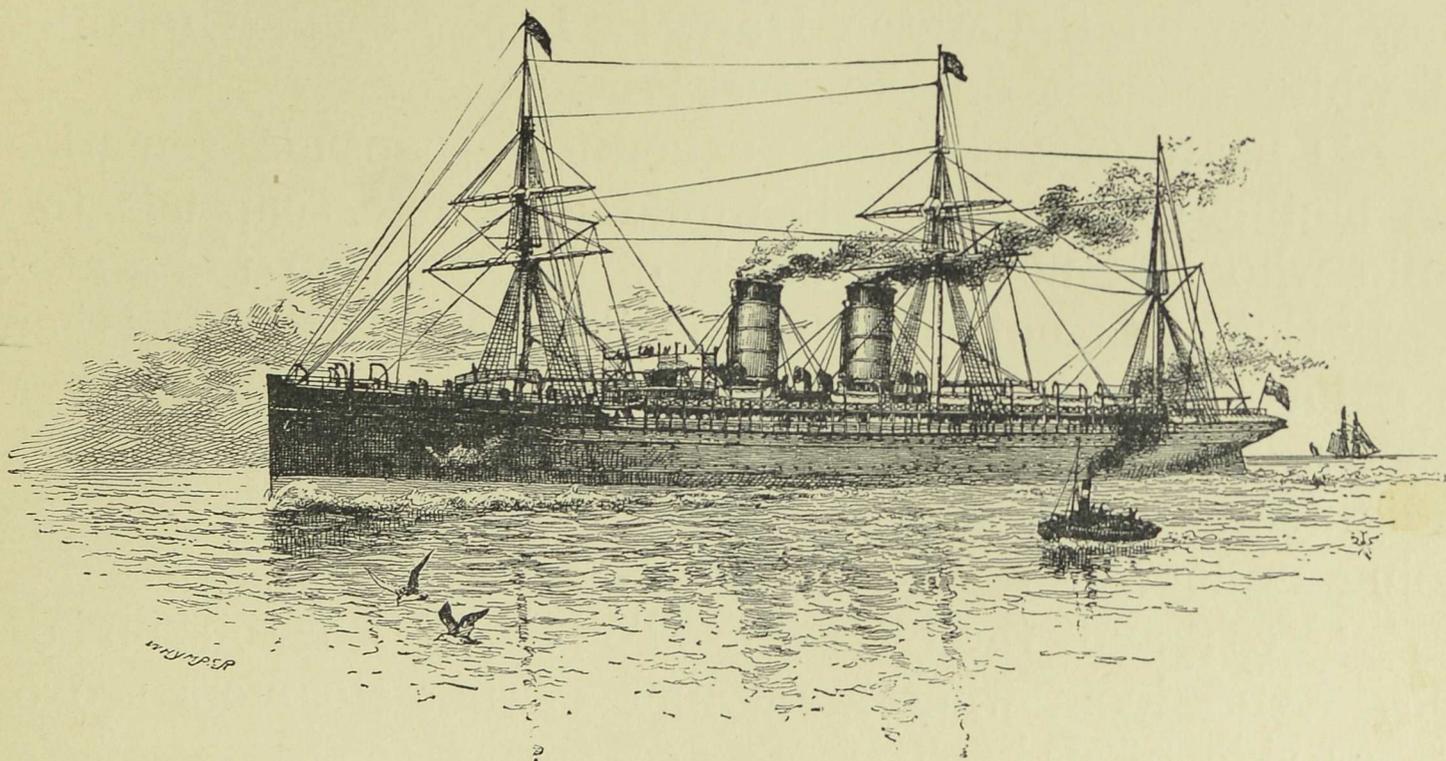
‘And does it carry off the steam, papa,—puff! puff! like the railway engines on the land?’

‘No; you will scarcely ever see much steam issuing from the funnels of steamships. And the reason is that the steam is condensed back to water, and used up in the boilers again and again. If you held a glass over the steam of a kettle, you would see the steam turn into little drops of water. How much water do you think is

passed every hour through the condensers (that is, the places where the steam turns to water again) of a great ocean steamship,—like the Umbria, for instance, in which I went across to New York?’

‘As much as in our cistern at home,’ hazarded Harry doubtfully.

‘Hundreds of times more. About four thousand tons of water every hour! So, if that water, when turned to steam, were blown into the air, what an immense



THE CUNARD STEAMSHIP UMBRIA

quantity of water the ship would have to carry to sail across the Atlantic in six days.’

‘It would drown the ship,’ remarked Harry seriously, and with wide-open eyes.

‘Well, the ship would be full of water, and no room for passengers,’ said his father, smiling. ‘Because seawater is not suitable for turning into steam. Ha! now we are going!’

‘Now for the whistle,’ said his mother. ‘Oh, what a noise!’ and she placed her hands over her ears.

‘Boo-who-oo!’ shrieked the whistle.

'That is to let all the other ships know we are coming,' cried Harry, laughing. 'Oh, we are going backwards.'

'That is to get away from the pier,' explained his father. 'Do you see how the bow of the steamer—that is, the front part—is turning away from the shore, and pointing down the river. Now we are going forward.'

Splash-splash; splash-splash.

'There are the paddle-wheels splashing the water, and urging on the boat,' said his father. 'What foam they make on the water, Harry! Look, what a quantity of white foam is on the river!'

'I heard of a child who called that soapsuds,' remarked his mother; 'I suppose it would look like soapsuds to a child who had not seen much of steamers on the water.'

'But it is not soapsuds, is it?' asked Harry; 'there is a lot of foam. And are we not going fast, mother? Oh, is it not jolly?' and the boy clapped his hands in delight. 'Is that the Tower Bridge, father, we are going under?'

'Yes; and there is the Tower of London on the left. And look, what a number of big steamers are on either side of us.'

'There are a lot,' exclaimed Harry; 'but, father,' he continued thoughtfully, 'I see they have not all got wheels on their sides like this ship has.'

'No; because they are screw-ships. There are two kinds of steamers,—paddle-wheels and screws. The screw—or a better name is propeller—is placed at the rear of the ship, under water;—there, you can just see the top of that screw projecting out of the water on that steamer. The Umbria was a screw-steamer, of course,—all ocean-going steamers are screws now; and paddle-wheel steamers are often used for shallower waters. Tugboats are sometimes paddle-wheel and sometimes screws.'

‘Tugboats?—what a funny name, father! What are tugboats?’

‘They assist larger vessels, and tug or draw them along.’

‘As I tug at my mail-cart with my sister in it,’ laughed Harry.

‘Well, a tugboat sometimes brings a large ocean-going sailing ship into harbour, heavily laden with cargo from foreign lands. Perhaps we shall see one as we go down the Thames to-day.’

‘Could not the sailing ship come in alone, father?’

‘Well, she might, if the wind were favourable; but the steamer can make her way no matter how the wind blows, and so the tug often brings her in more quickly. There,’ added his father presently, ‘there is a paddle-wheel steamer tugging that ship along. See how lightly she sits on the water; she has no cargo on board, and you can see the floats, or paddles of the wheels, just above the water. They are like flat pieces of board, you see, that keep striking the water one after the other as the wheel whirls round.’

‘And does that make the steamer go on?’ asked Harry.

‘Yes; that propels the steamship,’ answered his father.

‘And what do they have the flags for, papa?’

‘For joy, I suppose, at the successful return of the ship. Look, the name of the tug is on the flag at the top; it is the Resolute.’

‘How do they fasten the tug first to the ship, papa?’

‘Well, they throw a rope from the ship when the steamer gets near enough; sometimes she rocks so much on the heaving waves that she could not without danger get quite close. The rope is coiled up in readiness on the deck of the ship, and the sailors have to learn to



A TUGBOAT BRINGING A SAILING SHIP INTO HARBOUR

throw it with unerring aim, and sufficiently far. Then the man on the tug catches it and fastens it to the boat, and the tug can go steaming on fast and towing the ship behind it.

‘Sometimes a small steamer is called a tender. That is, it goes out to meet big steamers or big sailing ships, and takes out passengers and goods to them; or it takes off passengers and goods; frequently it carries bags of letters to or fro, when the big ship is not coming into the harbour, or alongside the landing-stage.’

‘Oh, of course the big steamers take letters over the ocean,—don’t they, papa? I did not think of that.’

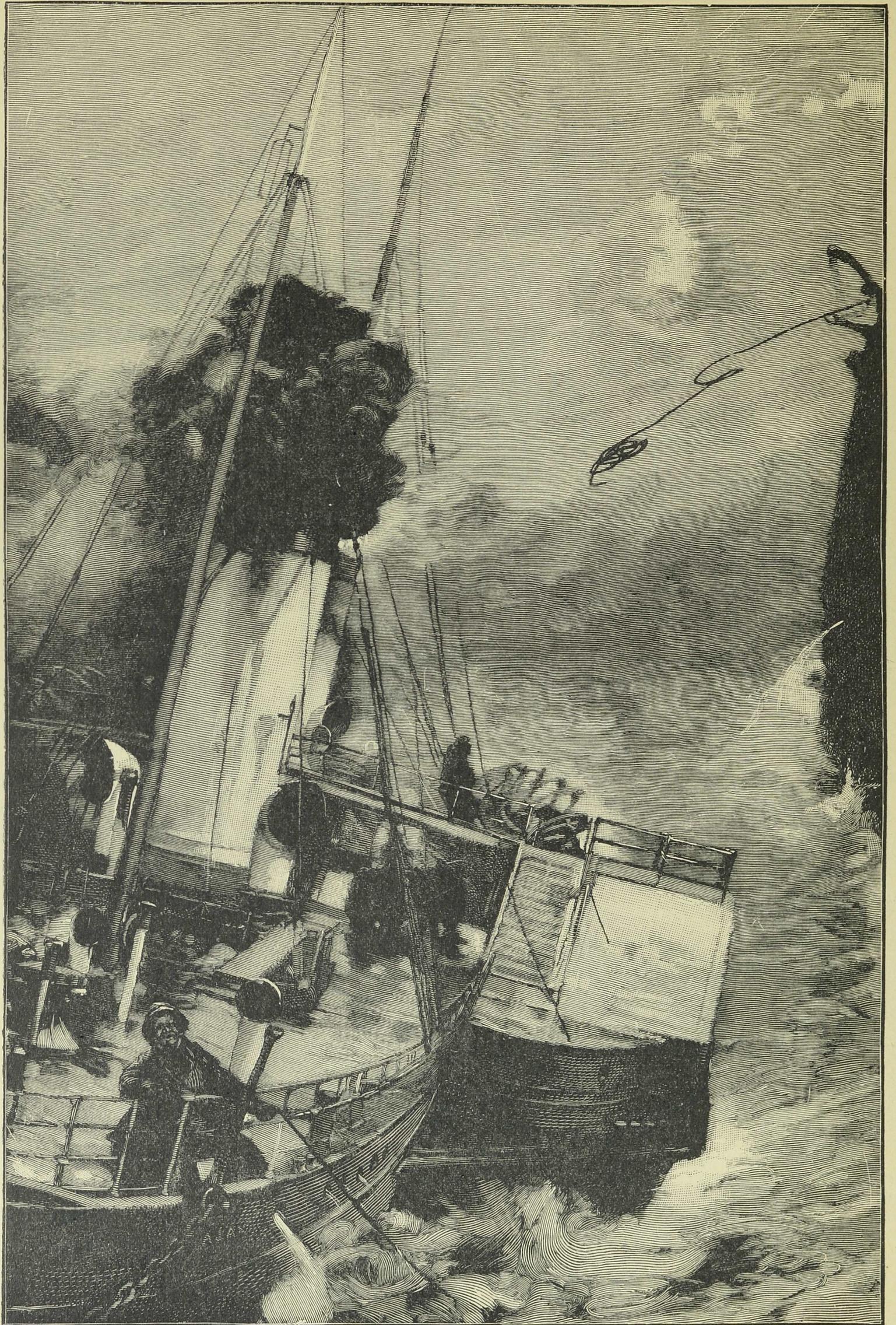
‘Yes; and an enormous number of bags of letters and papers they take sometimes. The Cunard steamer *Britannia*, the first of that famous line of steamships, was also the first Transatlantic steamer to carry the mail bags. Steamers had been carrying them southward for a few years previously, since 1837. The *Britannia* sailed on her first voyage from Liverpool on July 4, 1840, and arrived at Halifax, on the other side of the Atlantic, in twelve days’ and ten hours’ time. Now the splendid Cunard steamers *Lucania* and *Campania* cross the Atlantic in less than half the time, namely, in little more than five days.’

‘Oh, how quick; but—but not too quick if I was sick all the time.’

‘Oh, you would not be ill all the time, Harry. Very often the sea is calm.’

‘Did you see any funny ships when you were gone away, papa?’

‘You mean, when I was journeying round the world, Harry. Well, I saw Chinese junks and sampans. The junks, you know, have sails that pull up and down, something like venetian blinds. That is, they have big, ribbed sails, which can be partly or wholly closed by ropes hang-



TENDER COMING ALONGSIDE—THROWING A ROPE TO A TUG OR TENDER

ing down to the deck. Junks rise up high, both in front and also at the stern, and sometimes they have curious carvings, as of the heads of big birds or beasts, in front. And they have rooms or houses built on deck. The sampans are smaller boats, and gaily painted. You often see the people on these junks and sampans engaged in fishing. There are children on board, and you hear dogs barking, so that you would think whole families live on the vessel.'

'And do they, papa?' asked Harry.

'Yes; on the great Chinese rivers and on the sea there are numbers of Chinese families who make houses of their vessels; and sometimes you may see small buoys—I mean b-u-o-y-s, things that float on the water, you know—fastened round the children, so that if they tumble head-over-heels into the water they will not be drowned.'

'What a good thing!' exclaimed Harry, clapping his hands. 'And what fun to live always on a boat!'

'Perhaps you would soon get tired of it,' said his mother, smiling. 'I should have to tie a large float or buoy on to you to keep you from sinking.'

'Ha-ha-ha!' laughed the merry boy; 'I know you would, dear mother. Well, father, what other funny ships did you see?'

'Well, I saw Malay proas, or "flying proas," as they are sometimes called. One side of the boat is flat, and the other side bulging and rounded like an ordinary boat. Then the stern is as sharp as the stem—that is, the front part—so that the proa can sail backwards or forwards without turning. And projecting from the side on which the wind blows is a fairly large framework bearing a weight, balancing the wind blowing heavily on the large sail. This sail is really like a huge mat. Oh, there are all kinds of boats and ships made by different people in the world. Some are propelled by sails and others by oars.'



SOME STRANGE SHIPS

‘The canoes — that is, light narrow boats — of the Fiji islanders are sometimes a hundred feet long; and then there are double canoes, with a deck fastened over them. The war canoes of the savages have frequently elaborate carvings on the stern and stem,—perhaps the head of some very ugly person. Some of the natives also have light small canoes, suitable for one man only, and with these they easily paddle through the surf, or rough foamy water round the coasts of their islands.

‘Then there are the feluccas—small two-masted vessels, used much nearer home, in the Mediterranean Sea, and having lateen sails,—that is, three-pointed or triangular sails fastened to slanting poles across the masts. Feluccas have rudders, or things for steering, at each end, both at stern and stem, to be used as may be required. And yet another vessel I can mention is the Venetian gondola, used in that wonderful city of Venice, where the streets are like canals.’

‘What! all water, papa?’

‘Yes; and the gondolas take people about the watery streets as carriages or cabs do in the London streets.’

‘Why, what are they like, papa? Does a man row them?’

‘Yes; the gondolas are long and narrow boats, with both stem and stern curving high out of the water, and each tapering to a point. A man propels them by a long sweep, or oar, which he handles very deftly and with great power. In the centre, there is usually a curtained room for the passengers or owners, and in these vessels persons can glide comfortably from street to street. You will learn more about Venice, and perhaps see this wonderful city of the sea, when you are older. Ah! there is a P. & O. liner just dropping down the Thames, Harry.’

‘P. & O., father!’ exclaimed Harry in surprise.

‘Yes; Peninsula and Oriental Steamship Company, popularly called P. & O. for short,—one of our oldest and greatest steamship companies. Its ships sail to the East and to our kindred in Australia. It began to carry the mail bags to the Continent as far back as 1837, and, I suppose, now has as many as nearly sixty steamers. And there, that other beautiful vessel, painted a sort of greyish colour, is one of the Donald Currie line of steamships, sailing to South Africa.’

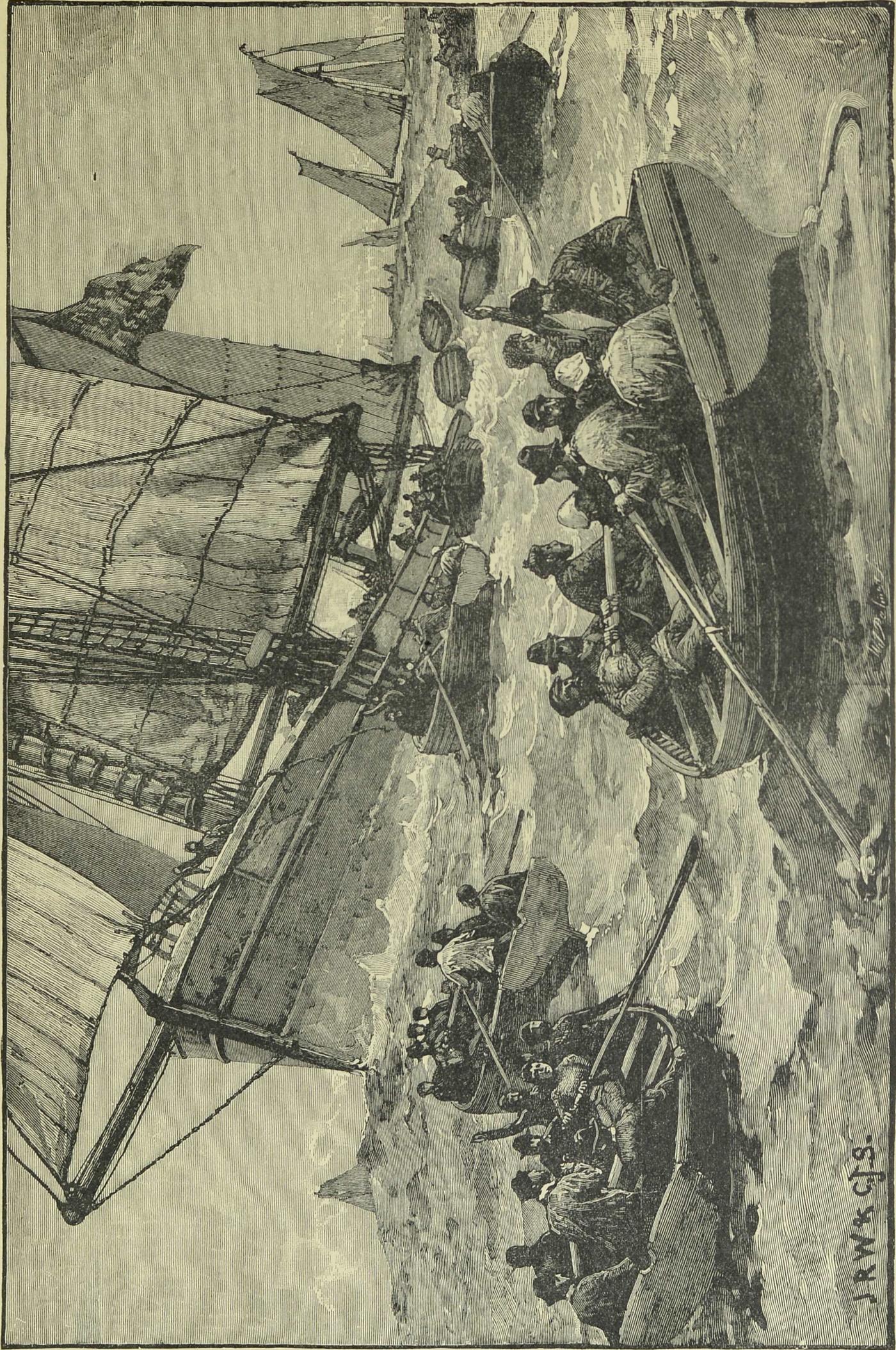
‘And what is this one, father, that comes along so fast?’

‘That is a fish-carrier, Harry; she is steaming as quickly as she can to join the fishing fleets in the North Sea. There are fleets out there, miles from Yarmouth or Grimsby, fishing in the sea, and these quick steamers go out to them, collect the fish from them in boxes, and bring the boxes to market. This steamer has landed all her fish at Billingsgate or Shadwell, and is now returning to the fleets far out in the North Sea.’

‘To bring home more fish, papa?’

‘Yes, to bring home more fish, Harry.’

‘The Mission to Deep-Sea Fishermen now send mission vessels among the fishing fleets. The men are away from land for six weeks at a time, and they would be almost entirely without any religious help, so kind friends all over the country subscribe to keep a mission smack with each fleet. To this, on Sundays, the men from the other vessels come, as you see them doing in the picture. Ministers and others often go out for ten days or a fortnight, to hold services and to talk to the men. The fisherman’s life is very hard and very dangerous, and many of them like to hear the wonderful story of Jesus and His love; how He came to earth to live, and to teach, and to die for our salvation. And



A MISSION SMACK ON THE NORTH SEA

then, if you could only hear them sing! They like gospel hymns with a good rolling chorus, like "At the cross there's room," and "Hold the fort," and "Safe in the arms of Jesus." And the mission ships often have doctors on board, to attend to the men when they get hurt, as they often do in their arduous toil. Sometimes a finger, or an arm, or a leg is broken, and the doctors bind up their wounds and attend to the sick folk properly. The Religious Tract Society sends out tracts and magazines and books to the mission vessels, and the men from the fishing smacks come in boats to get them. Mufflers and gloves for the winter also are supplied. A rope is thrown to the men as they come near, and they fasten their boat cleverly beside the vessel and climb aboard. It would not be easy work to a landsman. I think little Harry would not find it easy, because the boats and vessels are tossed and rocked and pitched up and down so much by the heaving sea.'

'But I would soon learn how to do it, papa!' exclaimed Harry stoutly. 'If other people could learn, why could not I?'

'Capital, Harry,' said his mother; 'that is the way to look at difficulties,—do not be afraid of them. Now, ask your father to tell you about some other mission vessels.'

'Well, all, or nearly all, the great missionary societies for preaching Christianity to the heathen have mission ships of their own; some, like the steamboat Peace of the Baptist Society, for navigating great rivers, such as the Congo in Africa, for the Congo Baptist Mission; and others, like the John Williams of the London Missionary Society, for navigating the sea. It sails from island to island in the South Sea, taking stores and teachers and missionaries from one place to another.'

'Yes, I remember the John Williams; I collected money for it,' cried Harry.

‘That was the fourth of the same name,’ explained his father; ‘and it was a steamship, but fitted with sails also. One of the first modern missionary ships was the *Duff*, which in 1796 took out a number of missionaries from the London Missionary Society to the South Seas soon after the Society was formed in 1795. That vessel was, of course, a sailing ship. Then there was the first *John Williams*, in 1844, also belonging to the London Missionary Society, and named after one of its great missionaries, who was martyred by the savages at *Erromanga*—one of the South Sea islands—in 1839; and since 1844 there has always been a *John Williams* missionary ship belonging to the Society, and generally paid for by the collections and subscriptions of children. Then, another mission vessel is the *Harmony*, belonging to the Moravians. The Moravians are among the oldest workers in the modern missionary enterprise, and the fourth vessel of that name first set sail in 1861. Then there were the *Good News* and the *Ilala*, which belonged to the London Missionary Society, for service on the great lakes and rivers of Africa. Sometimes these boats are built in sections, or pieces, so that they can be carried inland to the great sheet of water where they are to be used, and put together there. Numbers of natives have to be hired to carry these pieces of the ship through the forests, for, of course, there is no railway for the purpose.’

‘Oh, I should get tired!’ exclaimed Harry.

‘I expect you would; but the missionaries kept bravely on, and the sections duly arrived and were put together, and the boats have worked famously. Then the Church Missionary Society have several steamers. There is the *Henry Venn*,—there have been two of that name,—for use in great rivers, and the *Henry Wright*, for sailing round the sea coast. The *Henry Reed*, the



DUFF 1840

HARMONY IV 1861

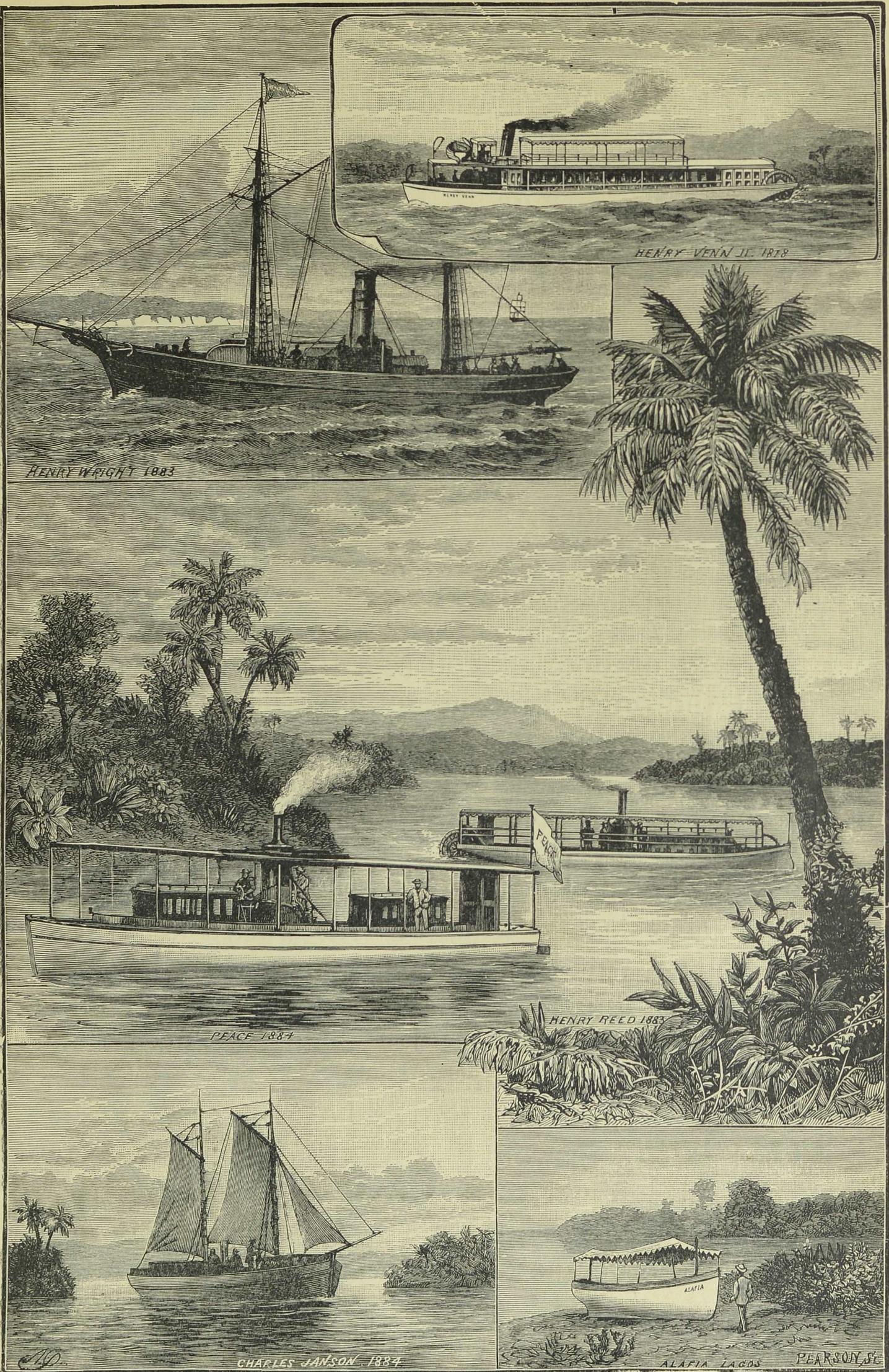
JOHN WILLIAMS 1844

GOOD NEWS 1844

ILALA 1845

PEARSON

MISSIONARY SHIPS



HENRY WRIGHT 1883

HENRY VENN II. 1878

PEACE 1884

HENRY REED 1883

CHARLES JANSON 1884

ALAFIA LAGOS PEARSON & CO

MISSIONARY SHIPS

Charles Janson, and the *Alafia* of Lagos, are also missionary vessels. Some of these, like the *Henry Venn* and the *Henry Reed*, have a light paddle-wheel fixed behind at the stern. These are for use in lagoons and shallow rivers on, say, the African west coast, being less likely, it is thought, than a screw propeller to become fouled by weeds.

‘So now, you see, Harry, there is quite a large fleet of missionary vessels belonging to different societies, and sailing in different parts of the world.’

‘Yes; there do seem to be a number, papa.’ Then presently he exclaimed, as he watched various sights on the river, ‘Oh, look at those men on those boards, papa! What are they doing?’

‘Well, they are rowing a large quantity of timber to some shipyard or dock. You see, timber will float on the water, and the men bind a number of pieces together, and then float them along the river. This plan is frequently pursued on the great rivers of America, but you do not see it so often on the Thames.’

‘And it saves paying for boats to take it about, papa.’

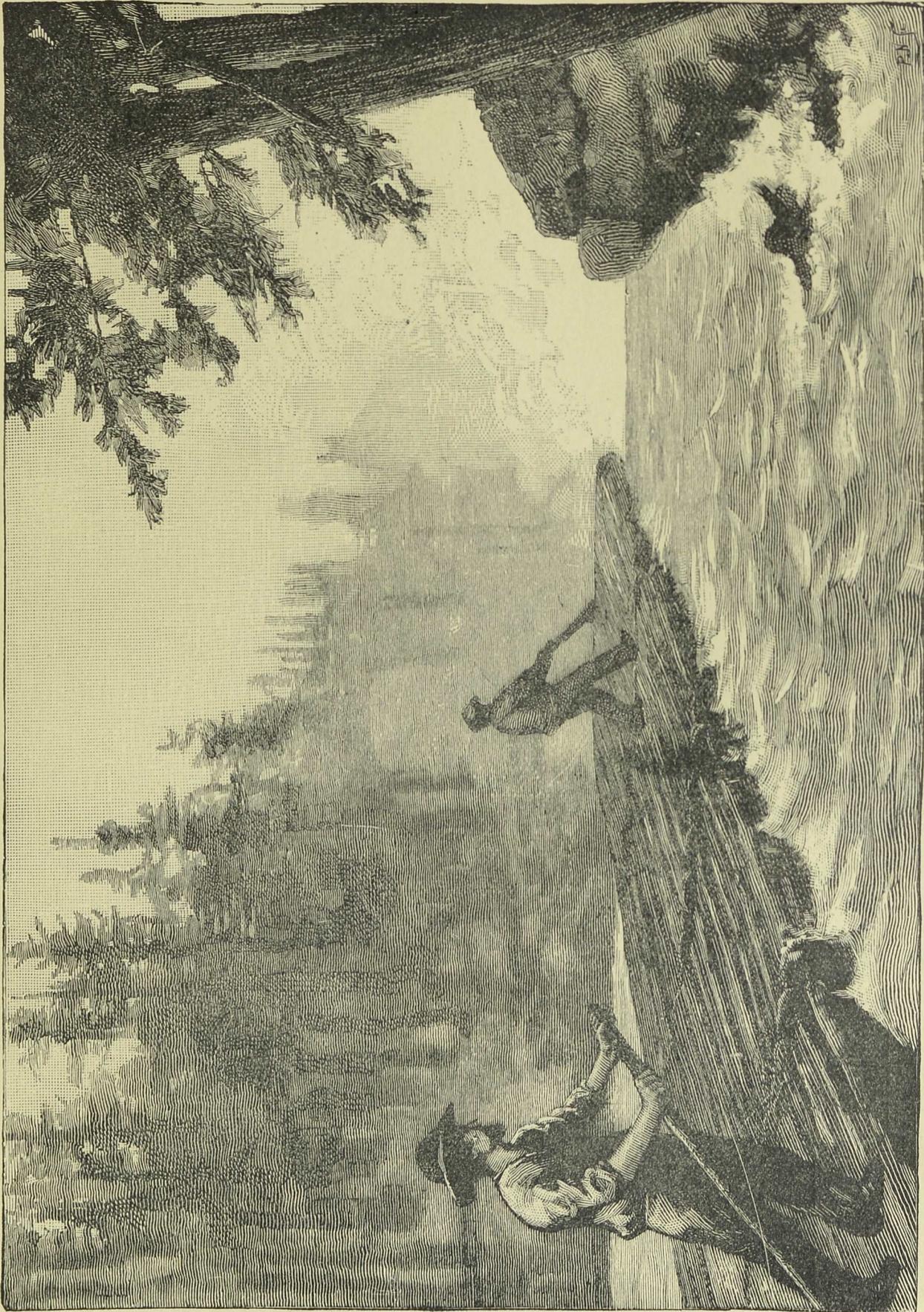
‘Quite so. Well, now, we have been talking about boats, but there is one kind of boat I have not yet mentioned to you; I wonder if you can guess what it is?’

‘I do not know at all,’ cried Harry, opening his eyes very wide, and shaking his head. ‘There seem so many kinds of ships and boats.’

‘I should say it was the lifeboat,’ said mamma.

‘That is it,’ answered Harry’s father. ‘I fear you will not see a lifeboat on the Thames, because vessels are generally pretty safe in a river. But on coasts, where rocks and shoals are to be met with, and where vessels might be liable to be wrecked, these fine boats are placed at various points by the National Lifeboat Institution, in order to save life from wrecked or distressed vessels.’

‘It must be dreadful to see a ship in a storm at sea,’ cried Harry.



FLOATING TIMBER ALONG AN AMERICAN RIVER

‘You would be glad for the lifeboat to come and take you off, would you not?’ said his mother, ‘when

the big, cruel waves were crashing over the ship, and breaking everything to pieces?’

‘Yes, I should indeed, mamma. But how can the boat sail in such big, rough waves?’

‘Lifeboats are especially built to live in terrible seas,’ replied his father. ‘They are built with air-cases at the stem and stern, and also along the bottom above the keel, so they are very light, and float like a cork; then they have a heavy iron keel, which assists in preventing the boat from being turned over, or from being too light, so as to be blown out of the water; and the sides are made very strong, of two plankings of mahogany wood and prepared canvas. There are various types of lifeboats, but they are all very light and buoyant, so as not to sink, even if full of water; they are very strong, so as to withstand collision against either wrecks or rocks, and the heavy blows of rough seas; and they are self-righting, so that if overturned by wind and wave they may pull themselves round and float upright again.’

‘But if it fills with water, how do the men get the water out, papa?’

‘The water runs out itself through tubes in the bottom of the boat, Harry. These tubes are fitted with valves, or shall we call them little doors, which only open one way, that is, outward, and they let the water out; but should the sea try to come in, they shut up tight like an oyster-shell, and say,—“Not to-day, Mr. Sea.”’

Harry laughed heartily at this. ‘They must be very strong little doors,’ he cried.

‘They are very strong; but then there is another thing. I wonder if you can understand it. It is a law of Nature that water never rises above its own level. That is, if you had a pipe, and put it into a basin of water, the water would not rise higher in the pipe than in the basin itself.’

‘Yes, I can understand that,’ said Harry thoughtfully. ‘I have done that when I have been playing with water.’

‘Very well, then. Now, imagine the pipe to be at the bottom of the boat, and the water in the basin to be the sea, and you will understand that naturally the water would not rise in the pipe higher than the sea outside.’

‘Yes, yes,’ said Harry, clapping his hands.

‘So that, without the valves, the water would not rise in the tubes of the boat higher than the sea outside, unless the waves were blown by the wind or raised high by the swell of the storm; and the lifeboat sits very light in the water, as I have told you, so a great part of it is above the sea-level. Well, then, all round the boat are lifelines, for men to grasp if they should be in the water.’

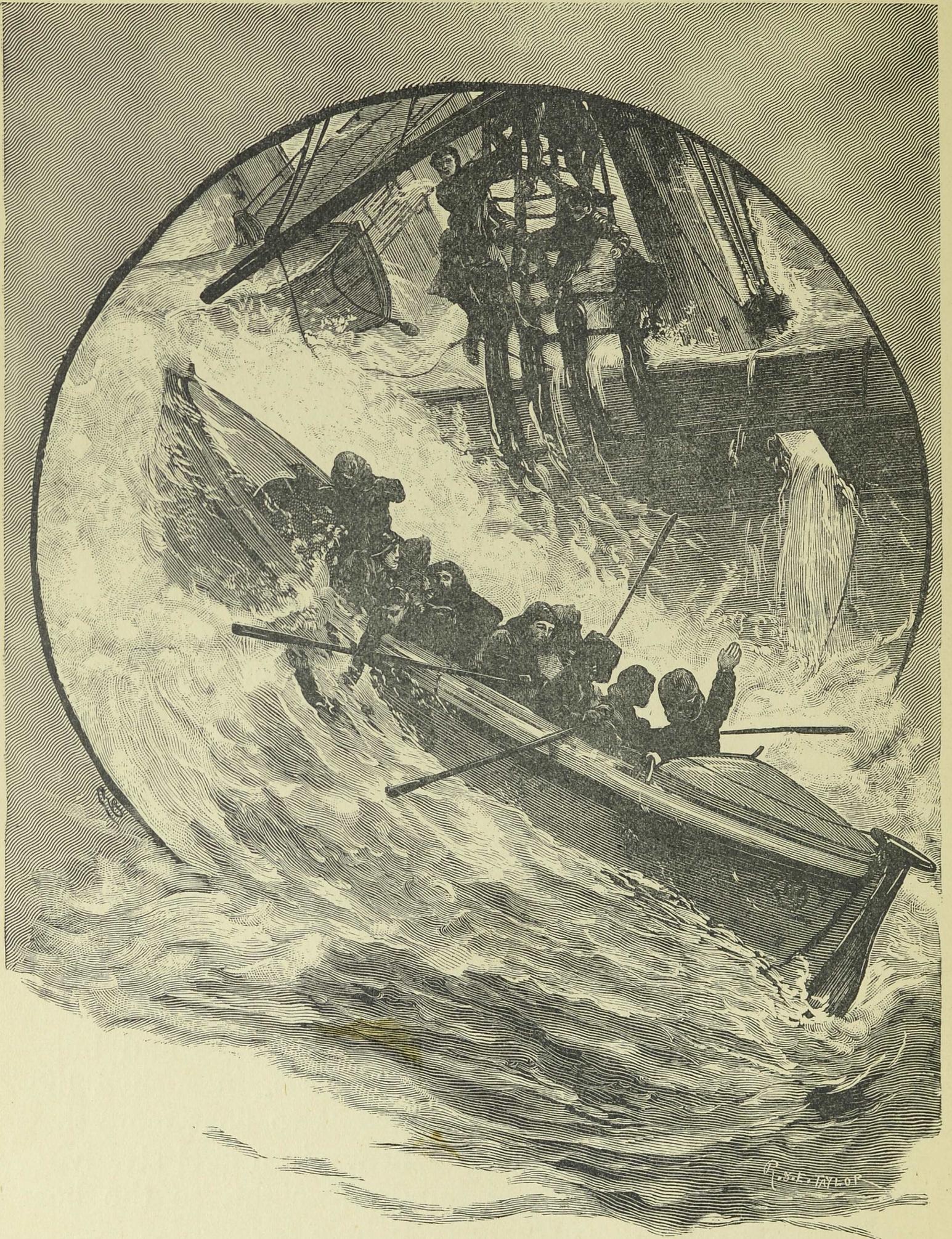
‘And how many people will a lifeboat hold, papa? It ought to be big, to take off a ship’s crew as well as its own.’

‘The ordinary lifeboat belonging to the Institution measures about thirty-four feet long by seven and a half feet broad. It is provided with ten oars, and its crew consists of thirteen persons. Including the crew, this boat should carry forty, or even a few more, individuals in a stormy sea.’

‘Ay, it is fine to see a lifeboat at work. How she rises on the crest of every wave, or shoots straight through every sea; and no matter how much the water may break over her, she pursues her way up and down the sides of the great billows straight to the wrecked vessel.’

‘You must understand that the lightness and buoyancy attained by means of the air-cases, in such a lifeboat as I have described, are sufficient to float more than eleven tons of weight, while the heavy iron keel steadying the boat weighs about nine hundred-weight, so the boat ought to be able to carry forty people.’

‘Well, when a lifeboat draws near a wrecked vessel,



LIFEBOAT REACHING A WRECKED VESSEL.

the boatmen often find it very difficult to get sufficiently close to take off the crew, for the waves are frequently breaking high beside the vessel and over its decks; sometimes the vessel herself rolls heavily, and the lifeboat is swung violently up and down by the roaring waves,—her bows now high in the air and her stern low, and then her bows pitched low and her stern thrown high. Again, the sailors are at times found half-dead with cold, and lashed to the rigging, so that it is a difficult task to get the men off.’

‘Why do they tie themselves to the rigging, papa?’

‘To prevent the heavy seas from washing them away. They sometimes get so benumbed from cold and wet that they can hold on no longer, and drop into the raging waves. There was a vessel a few years ago, called the *Felix*, stranded on a bank in the sea, called the Burnham Flats, some little distance from the Norfolk coast. She was blown right over on her side,—on her beam ends, as sailors say,—and the heavy sea broke over her terribly. Well, the brave lifeboat-men on shore at Brancaster launched their lifeboat, and put up their sail,—for some lifeboats have sails,—and proceeded to the wreck. They found but one man left; he was the captain, and had lashed himself to the head of the mainmast, and the lifeboat-men could only rescue him with difficulty. All the others of the crew—and there were seven of them—had fallen from the rigging, because they were so cold, or had been washed overboard when the vessel was suddenly thrown over.’

‘And do the ships sink sometimes without a lifeboat coming to them; and do the poor men all get drowned, papa?’

‘Sometimes they do. A bottle was picked up, one day in December 1895, telling of such a sad event. The bottle was found by Mr. John M’Pherson off Cape Eliza-

beth, in the State of Maine in America; and in the bottle was a piece of paper with a message written upon it.

‘And what do you think the message was?’

‘I don’t know,’ said Harry, with wide-open eyes, and shaking his head.

‘It said that the schooner Harriet was sinking in a gale of wind and snowstorm, and it gave the date,—which was twenty-seven years before,—and also gave the captain’s name. So, you see, after knocking about the ocean for twenty-seven years, the bottle was found, with its strange message within, telling how the ship was lost.’

‘And was there really a ship of that name?’ asked Harry’s mother.

‘Oh yes. The note also said whither the vessel was bound,—to North Sydney from Portland; and it appears that a vessel called the Harriet did sail on January 1, 1869, and was never more heard of. But you must not suppose that ships always meet with disasters, Harry. Some live a long time, and never lose a passenger or a sailor. Disasters at sea are growing fewer in number, and the lifeboats round the coasts perform splendid service, and rescue hundreds of lives.’

‘But how do the lifeboat people know when there is a wreck, papa? and how do they see at night?’

‘The wrecked sailors show “flares,” as it is called. That is, they burn lights. One captain I have heard of, whose ship struck on the Scroby Sands, some distance from Yarmouth, burned everything he could get to make a blaze, even blankets, which he soaked in paraffin oil. Some ships carry chemical mixtures, such as blue lights; others fire little cannons at short intervals,—hence the term “minute-gun,”—to give warning of their perilous position, and ask for assistance. In the daytime, men on shore may be able to see them, and the ship may fly flags of distress. But happily, many and many a ship comes safe into port.’

'As we are doing now,' said his mamma; 'for here is Southend, with its long, long pier, and its tramcars.'

'Yes, we will take the tram up to the end of the pier,' said his father. 'You will like that, Harry, will you not?'

'Good-bye, Mr. Steamer,' cried Harry gaily; 'it has been very jolly on board, has it not, mamma? and now we will take the tram.'

CHAPTER III

TRIPS BY TRAM AND 'BUS

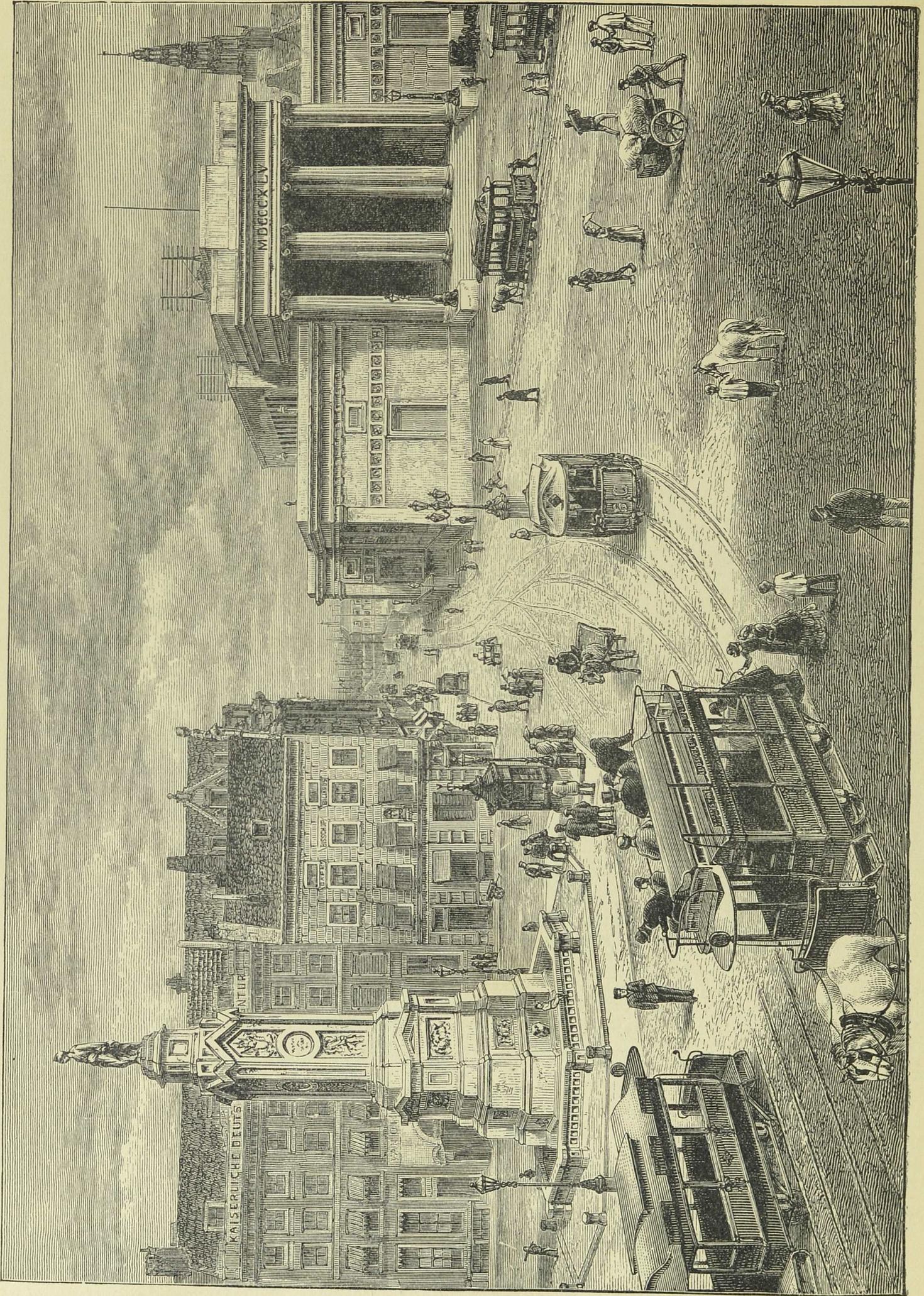
'**H**OW nicely we go along!' cried Harry, as, sitting in the tramcar on Southend Pier, he looked at the broad river Thames, stretching away on either side.

'It reminds me of that beautiful long tramway ride beside the sea, from Sandgate to Hythe,' said his mother.

'That was indeed a delightful ride,' agreed her husband. 'Those tramcars were drawn by horses, if I remember rightly.'

'Do not these trams go by horses?' asked Harry, raising his little head to obtain a view of the front of the cars. There were three or four cars together, like the carriages of a train, and they were full of people, so that he had not been able to see the front. 'No,' he added; 'I do not see any horses, papa.'

'These tramcars run along by electric power,' answered his father. 'But many are hauled by horses, as you have seen them in some of the London streets. I think I may say that most street tramcars are drawn by horses. I have seen them hauled by horses in Amsterdam and other cities. In some places, however, tramcars are hauled along by a cable, or chain, which



TRAMCARS IN AMSTERDAM

runs in a sort of pipe underground, and saves the labour of horses immensely. Cable-tramways also can be used where the hills would be too steep for horse-trams.'

'Tram is a funny name, papa. Why do people call it tram?'

'Well, now, I will tell you. Suppose you had to drag a heavy cart through thick mud, what should you do?'

'I should pull hard,' said Harry.

'And if you could not move the cart, no matter how hard you pulled, what then?'

'I should—get mamma to help,' exclaimed the boy, with a loving look at his mother.

'Oh no; you would not wear out poor mamma's strength,' she said, smiling. 'It would be so heavy!'

'But if you saw that the cart rolled along much more easily on a smooth road,' said his father, 'why, then, if you were sharp, you would begin to lay down smooth pieces of wood or stone in the mire for your cart to roll on. And that is what people did in early times. Now, an old word for great pieces of timber was "tram"; and so you can easily see that a road made of pieces of wood, upon which heavy carts could run easily, would be called a tram-road, or tram-way. And we keep the name still, though iron is used instead of wood; and it has a groove all along its length—a groove in which a flange of the wheel can run.'

'How interesting!' said Harry's mother. 'Now, I never knew why tramways were called tramways before. It is because heavy carts used to run on trams, or logs of timber.'

'Yes; generally, no doubt, at coal mines and quarries, where heavy weights had constantly to be drawn along.'

'And did people ride about on those old tram-waggons, papa?' asked Harry.

'Not much, if at all, Harry. No; travelling in early

days, before coaches, tramcars, omnibuses, or railway trains, was by shank's pony, or on horseback.'

'Shank's pony! what is that, papa?'

'You are going on shank's pony now,' replied his father, as they alighted from the tramcar, and ascended the hill.

'Yes; you trot along on



TRAVELLING IN EARLY DAYS, BEFORE COACHES, TRAMCARS, OMNIBUSES, OR RAILWAY TRAINS

shank's pony very often,' said his mother. 'It means your own dear little feet,—your own little shanks, or legs.'

'Oh-h-h,' laughed Harry, 'you mean walking. How disappointing!—to think you are going to ride on somebody's horse, and it means walking all the time!'

'Well, in early days people used to travel by walk-

ing, or riding on horseback, or in carts or waggons drawn by horses. Sometimes each person had his, or her, own horse. Sometimes two persons used to ride on one horse.'

'It must have been a strong horse,' observed Harry.

'It was,' said his father. 'Ladies used sometimes to ride on a cushion—called a pillion—behind the horseman. People in different parts of the world have various kinds of different methods of travelling at different times. Indians use bullock-carts; and rich Indians, who can afford it, ride on elephants, in a little covered car on the elephant's back.'

'I have ridden on an elephant at the Zoo,' cried Harry.

'Yes, and on a camel also, have you not? Well, some folks in Arabia and in North Africa ride on camels for miles and miles over the sandy desert. The camel is very strong, and it can travel for long distances without water, for it can store water in pouches, inside it, for its use. It jogs along, carrying a heavy load, at the rate of about two miles or two miles and a half an hour, but requires very little food. Some camels, however, can travel much faster, namely, ten miles an hour. The camel is sometimes called the "ship of the desert." I suppose its home is in Arabia; but it is found in various parts of Asia and North Africa.'

'And what do people do in the cold and snowy places, papa?'

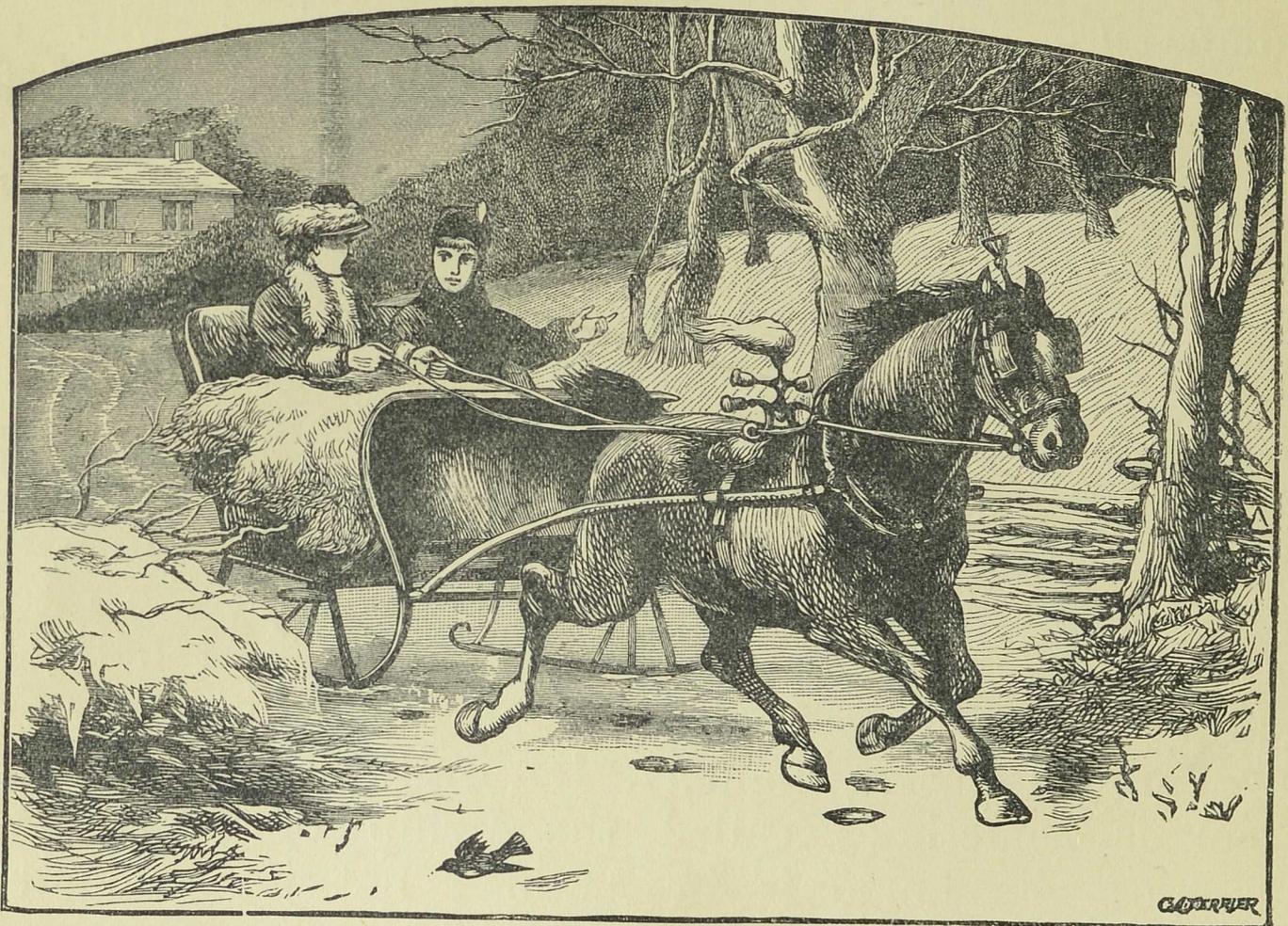
'They have sledges, Harry,—light vehicles that glide along on runners, and are drawn by reindeer, which have beautiful branching horns—as in Lapland; or by fleet horses, as, for instance, in Russia and Canada. Sometimes these horses have a light arch over their necks, with bells on the arch; and as they gallop along the bells make sweet music, which rings over the snow.'

'China, of course, has some very curious vehicles. You

may travel in a wheelbarrow in China—a jolting affair, which will soon make all your bones and limbs ache.'

'Oh, how horrid, papa! I would sooner walk. But Tom Fludger gave me a ride in a wheelbarrow in the garden once, and it was great fun.'

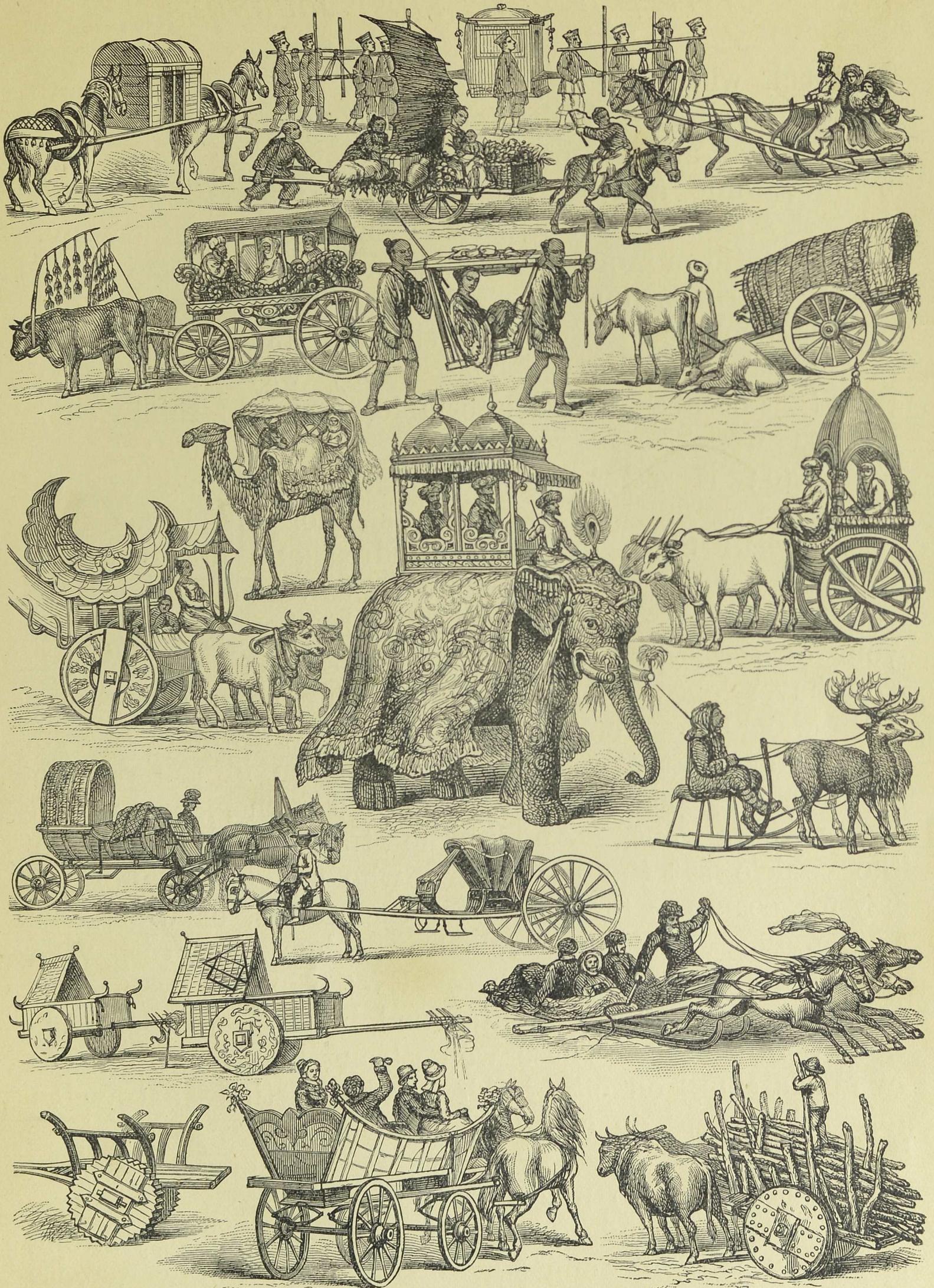
'Yes, for a short time, I daresay; but you would soon get tired of it. Well, perhaps you would like a palanquin,



CANADIAN LADIES IN A SLEDGE

or sort of sedan-chair, instead. It is like a big box on poles, with doors and windows, and men—called bearers—take the poles, which stretch out before and behind the box, and carry you and your goods and chattels along. Sometimes mules are placed between the poles, and trot along with the chair. Or in very warm countries you may have a chair without sides.

'The funniest conveyance in the world has perhaps been seen in China. It consists of a platform, placed on



SOME CURIOUS CARRIAGES

a wheel, with two projecting poles in front, like shafts, and two behind. A donkey can be placed between the first shafts, and a man can hold up and push those behind, while a ribbed sail—like a junk-sail—is raised against a mast in the centre. People can seat themselves on the platform around the sail; and goods also are carried there. Perhaps you may see a whole family trotting along on this machine—mother, and children, and all!’

‘That would be a very funny way of travelling, papa! Not nearly so comfortable, I should think, as in our carriages.’

‘No; it seems very different even from our old English waggons. These were used for some time. So, if you had lived, say, two hundred and fifty or three hundred years ago, and wanted to travel in Britain, and could not walk, and were not rich enough to ride in your own carriage, or on your own horses, what would you have done? You would probably have gone by a stage-waggon,—a cumbersome vehicle, drawn by six or eight horses, at a walking pace. Even in the days of Charles II., goods were usually carried from place to place by these waggons. And in the straw at the bottom of the vehicle sat the passengers, who could not afford to pay for coach or for horses for themselves, or who could not walk. But these vehicles seldom, if ever, went beyond York in the north, or Exeter in the west; and for places beyond these cities, and in the by-roads, pack-horses were used. These were strong horses, with packs of goods slung on either side; and sometimes a traveller might be found on a saddle between the two packs.’

‘They must have been very strong horses,’ observed Harry, ‘to carry so much.’

‘They were indeed. They were a race of very strong and very patient animals, which moved, however, very slowly, and travelling by them was very cold in winter.’

'I should think so,' said Harry's mother. 'I should have preferred coaches. When did they come on the scene, papa?'

'Well, it is not more than a hundred years ago when the coaches became fairly fast and frequent. The first stage-coach is believed to have been started from Coventry in the year 1659, but the vehicle only travelled about three miles an hour. Coaches in those days took two days to travel from London to Oxford, and two and a half days to journey from London to Dover. But when the mail-coaches were started in 1784, to carry the letters, the vehicles gradually rose to a pace of ten miles an hour. Coachmen grew more skilful, coach-makers built better vehicles, better horses were used, and, last but not least, the roads were much improved. The roads used to be very bad in England, and really prevented quick travelling.'

'Now they are very nice, aren't they, papa?' exclaimed Harry, stamping on one of the smooth hard roads. 'And how many horses did the coaches have, papa?'

'Sometimes four, Harry; and if you wanted to go by coach, you had to be sure and not miss it in the morning, or you might lose the whole day, or perhaps longer. Just fancy how annoying to run up the village street, just to see the coach start off, and know there was not another for two days.'

'I should shout at the coach to make it stop,' cried Harry.

'And run too,' remarked his mother. 'I daresay you might often have seen persons running to catch the mail-coach in those days. I have no doubt but there were people who were late for the coaches in those times, as there was somebody late for the train the other day. Learn to be always punctual, my boy.'

'Now, papa, shall we have some lunch?'

While the little party were enjoying their lunch of lamb and green peas,—for, as you may suppose, their trip was in the summer-time,—they saw a large vehicle driven past full of people, who had been out for an excursion.

‘There is a brakeful of people,’ exclaimed Harry’s

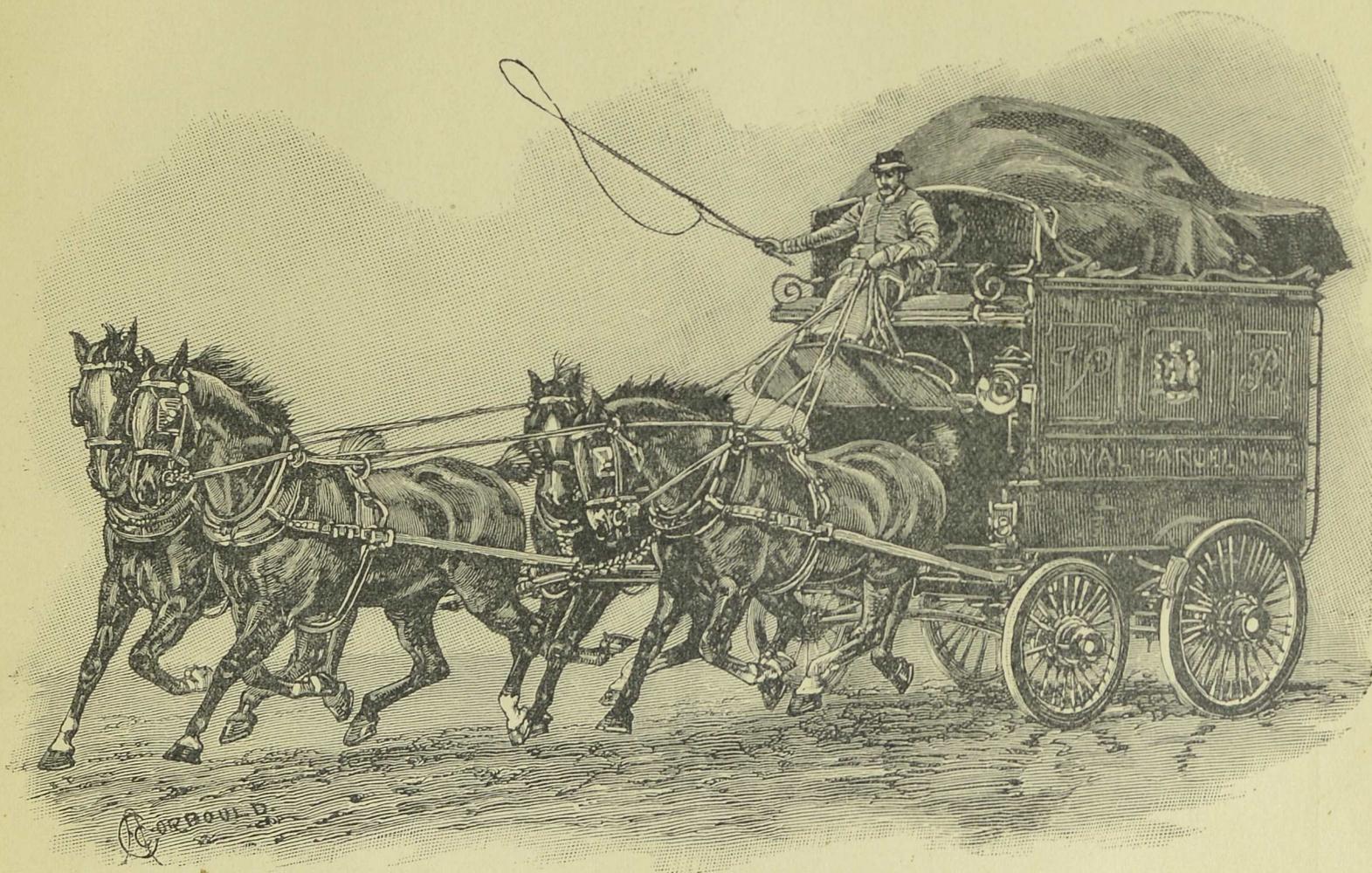


RUNNING TO CATCH THE MAIL-COACH

mother. ‘That large vehicle we call a brake, Harry; and a number of people pay a shilling or two shillings each for a drive in it, probably to some place of interest.’

‘Oh, that is not a coach, is it, papa? Do coaches run now?’

'A coach was covered over to protect people from rain and bad weather, though there were seats on the outside, and this brake has no covering. There are a few coaches running now. You may see some starting from Northumberland Avenue, where there are a number of big hotels, or from Piccadilly. They go for a day's trip to St. Albans or Hampton, or perhaps Brighton, or various other places not a very great distance from



A PARCEL-POST COACH AT THE PRESENT DAY

London; and no doubt the travellers enjoy the trip very much on a fine day. Then the Post Office run a mail parcel-coach to Brighton, and the four horses gallop along in fine style. But, of course, coaching as a regular means of travelling has long become a thing of the past. The railway trains have taken their place.'

'Yet there is a great deal of horse-riding and driving still going on,' said Harry's mother. 'Ha! there is a gentleman driving tandem.'

'Oh, what is that, mamma?' asked Harry. 'What is driving tandem?'

'Driving two horses, one in front of the other, instead of side by side. There they go.'

Harry hurried to the window to look at the tandem. 'Oh, I see it,' he cried. 'What a long whip the driver has.'

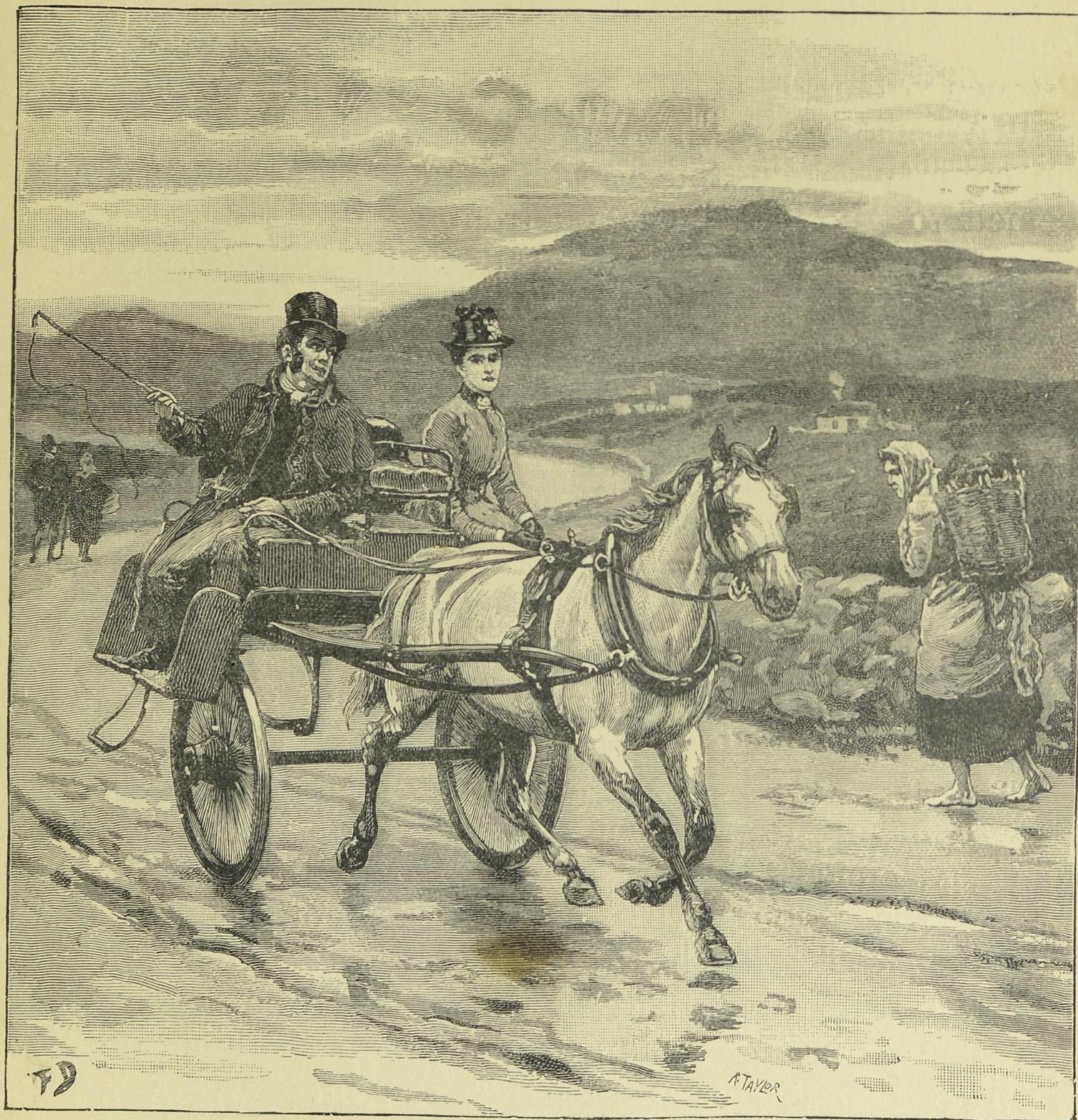
'I like driving very much, in a nice light vehicle,' continued his mother. 'I think the queerest vehicle in



DRIVING TANDEM

which I ever rode in was an Irish jaunting-car. You sit sideways, you know, Harry, with your feet on a sort of ledge, which has sides to it, to prevent the dirt splashing up from the wheels. The coachman, or the jarvie, as he is sometimes called, is often a very amusing man, and there you go, jaunting along the roads of "Ould Oireland," and you see the peasant girls go by, often without shoes on their feet, and carrying a basket of seaweed or perhaps

potatoes or provisions on their back. A stone wall divides the road from the fields, and in the distance rise the dark mountains to the sky. Yes, I enjoyed my visit to Ireland.'



AN IRISH JAUNTING-CAR

'Was that long ago, mamma?'

'That was before I was married, dear. I was staying with some friends, and Auntie Lou, she came over, and papa, too, he came, and we often had drives on the jaunting-cars.'

‘Oh, you will take me next time,—won’t you, mamma?’

‘Yes, perhaps we will take you to Ireland some day.’

‘And where else did you have drives, mamma?’

‘Well, I remember having a number of nice drives when I was staying in Cornwall. I used to walk some distance over the moors, and the coachman would come to drive me back. He brought a nice light gig for the country roads, and it would bowl along so fast, and seemed to give the horse no trouble.’

‘You have had a good deal of riding, mamma,’ said Harry. ‘I am glad; because you like it.’

‘I have enjoyed a fair amount, perhaps, Harry,’ replied his mother; ‘and I know a little boy who likes driving with mamma very much also.’

Harry laughed. ‘So I do, mamma,’ he answered. ‘Do you remember, we met Aunt Louie one day with an old lady, who held up her hands and said, “Dear me! how he has grown, to be sure!”’

‘Oh yes; that was our old nurse,’ answered his mother, smiling. ‘Well, we were riding then in a victoria, I remember, and a nice, light, comfortable carriage it was.’

‘I have grown much bigger now, mother, have I not?’ exclaimed Harry.

‘Perhaps you have,’ admitted his mother; ‘and you are getting better, I hope, every day.’

The little party had now left the restaurant where they had taken their lunch, and were strolling on the prettily laid-out cliffs overlooking the broad river, which was sparkling brightly in the sunshine.

‘Is this the sea or the river, papa?’ asked Harry.

‘I should call it the mouth of the river—where sea and river meet,’ replied his father.

‘It looks big enough for the sea, does it not, father?’

‘Well, much bigger than it is higher up—say, at

Windsor, Harry. Windsor Castle, you know, is where the Queen lives sometimes.'



A RIDE IN A VICTORIA

'Oh, I expect the Queen has a great number of horses, has she not?' asked Harry.

'The Queen has a team of six beautiful cream-

coloured horses,' answered his father. 'They look most handsome, with their gay trappings and their brightly-dressed attendants.'

'And when the Queen rides out—especially on State occasions,' added Harry's father, 'Her Majesty is often escorted by a troop of horse-soldiers, with plumed helmets and bright steel breastplates and glittering swords,—oh, they make a brave show, I can tell you.'



A ROYAL CARRIAGE
WITH THE FAMOUS CREAM-COLOURED HORSES

'They are the Household troops, I suppose,' said Harry's mother.

'They form part of the Household troops,' replied her husband. 'There are three regiments of horse-soldiers, namely, the First and Second Life Guards, and the Royal Horse Guards; and also three of foot-soldiers, the Grenadier, Coldstream, and Scots Guards,—all included among the Household troops; and their especial duty is to guard the metropolis and to attend the Queen. There are about one thousand three hundred of the horse-soldiers, and six

thousand of the foot-soldiers, in the Household troops. I saw some of them the other day, when I was on the top of a 'bus; they certainly looked a fine body of men.'

'Oh, I am glad you mentioned a 'bus!' said the lady. 'Do you think we shall be able to take a 'bus home easily to-night?'

'I expect we shall have a 'bus, and a cab also,' replied her husband, 'to get home right to the door. By the bye, how would Londoners manage to travel



A ROYAL ESCORT

about their great city without 'buses and cabs? You see, they can go where trams cannot—for tramcars can only run along the lines.'

'And when you leave a party at night,' said Harry's mother, 'it is so convenient to have a cab ready for you at the door—when you cannot afford your own carriage—to take you straight home. But I often think of the poor cabmen, waiting in the snow and rain for their passengers. It must be a hard life for poor

cabby. Perhaps if their customers thought more of the cabby's trials, they might be kinder to the men than I fear some are.'

'And give them an extra sixpence more frequently, or more willingly,' added her husband. 'Do you know that London cabmen have to pass an examination before they can get a licence to drive a cab?'

'An examination like schoolboys?' asked Harry, with his eyes opened wide in amazement.

'No, not that,' replied his father, laughing; 'an examination in London streets, and to show that they are able to drive quickly.'

'Oh, I never knew that,' said the lady. 'But, of course, it is very necessary that they should know their way well about London.'

'I had a drive in a cab once,' said Harry confidentially, as though telling his parents a great secret. 'It was a nice cab, with two wheels that went soft.'

'Went soft, Harry? What do you mean?' exclaimed his mother.

'I expect the cab had india-rubber tyres to the wheels, as many cabs have now,' said his father, 'so that the cab rolled along quite smoothly.'

'It did look a handsome cab,' remarked Harry. 'Auntie Louie said we should have a *handsome*.'

Harry's parents laughed outright.

'Not handsome in the sense of looking nice, Harry,' said his father; 'but Hansom—Hansom,—and so called because a gentleman named Hansom invented them; he was also the architect of the Town Hall at Birmingham. The patent for the hansom cab was taken out in the year 1834, and since then many improvements have been made.'

'Yes; some of the smart new cabs are really very comfortable and nice,' added Harry's mother. 'I was in the City the other day, and saw some hansoms with

a white curtain over the cab roof, to keep the inside cool in the hot sun; and the cabmen, too, looked quite spruce and neat. And some of the cabs do bowl along quickly. It is, I suppose, the quickest and most luxurious way of travelling about London, unless you have your own carriage.'



CABMEN WAITING IN THE SNOW AND RAIN

'Yes, I should say it is,' replied her husband. 'And what a huge number of vehicles there are in London streets. You will frequently see a great number of cabs and omnibuses in the City, near the Royal Exchange. It is quite a centre, and gives some indication of the enormous traffic going on.'

'I noticed it the other day,' remarked his wife. 'There

were indeed a great number. Now, I am going to ask you a riddle, Harry. Why is a cab called a cab?’

‘Oh, I don’t know at all, mamma; I give it up. But I heard a man the other day at the station ask the porter to get him a “growler.” What did he mean by that?’

‘A growler is a popular name for a four-wheeled cab,’ said his father, ‘though I really cannot tell you why it is so called. But the word cab is short for cabriolet—the name of vehicles which were introduced into England from France about the beginning of the present century.’

‘They are a vast improvement on the old waggons you have been telling us about,’ remarked his wife, ‘or the sedan-chairs of the last century. Those, you know, Harry, were something like carriages, which were borne on poles by a couple of men.’

‘I liked the hansom cab very much,’ exclaimed Harry. ‘I should not like the old waggons, though it is fun to ride on a hay waggon or on the wheat in the summer in the country.’

‘Yet, I suppose representatives of the old waggons still remain in carriers’ carts,’ replied his father; ‘and if you were to go to a street in the City of London called the Old Bailey, you might often see, in the upper and the wider part, quite a number of these carriers’ carts crowded together, before they start off on their journeys. These carts travel to little towns and districts around London. And in the same way I have seen a number of carriers’ carts congregated at country towns, waiting to start on their journeys to surrounding villages. These carts convey goods and also passengers at cheap rates.’

‘Really, I did not know that any were left,’ said Harry’s mother.

‘Then, if the carriers’ carts may be said to represent the old stage waggons, I suppose the omnibuses represent the old coaches.’

‘Yes, to some extent; for coaches were used by business men to go to their business in the City from



AT THE ROYAL EXCHANGE, LONDON

their houses in the suburbs, just as omnibuses are now.

‘Then, in July 1829, a Mr. Shillibeer, who had been a coach-maker in Paris, started large omnibuses in London, containing twenty-two persons inside. The first ran from Paddington to the Bank. Smaller ’buses were introduced in 1849.’

‘What does omnibus mean, papa?’ asked Harry.

‘It is a Latin word meaning “for all,”’ said his father. ‘The charges are very low; I suppose they average less than a penny a mile. But then the vehicles can carry twenty-two passengers at one time. Would you like to come with me one day to an omnibus yard, and see the omnibus horses at home?’

‘Oh, I should very much, papa; it would be very nice.’

‘You cannot go these holidays, I think,’ added his mother; ‘you must return to school in a day or two, you know.’

‘Then do tell me something about it now, please, papa!’ cried Harry.

‘Well, there was a wide yard with a row of stables on either side, and a second row also above them.’

‘Upstairs stables!’ cried Harry. ‘Why, how do the horses get up there?’

‘As we do,’ answered his father; ‘they have to mount stairs, — which, however, are very sloping, — and these stairs lead to a platform on the level of the upper row of stables. On either hand you can see the horses walking sedately down or up the stairs, wholly unattended, and as though quite used to such performances.’

‘Oh, I should like to see that,’ remarked Harry.

‘Horses seem coming and going all the time,’ continued his father. ‘The horse-keepers trot out with two fresh horses to the place in the streets, where they take the tired horses out of the omnibus and harness up the fresh ones, and then trot back with the tired horses to the stables. There is a tank in one corner for giving

the animals water, and the horses are fed and groomed and properly taken care of. But they soon get worn out, and a 'bus horse is only kept, I understand, about four or five years.'

'Is that all? Poor things, theirs must be very hard work!'

'The frequent starting and stopping for passengers try them so much. Passengers should be more thought-



OMNIBUS HORSES AT HOME

ful, and if the 'bus is stopped near to the place where they wish to alight, they should descend there, instead of forcing the poor animals to start the heavy 'bus for a few yards, and then in a minute stop it again.'

'Yes, I think so too,' added Harry's mother. 'I wish people would be more considerate.'

'But do you know that some carriages have been invented to travel without horses?' he asked.

‘Oh, papa, that is impossible!’

‘No, Harry, I have seen one myself running along the streets without horses. It certainly looked very curious. Indeed, races took place in the year 1895, in France, between various kinds of horseless carriages.’

‘But how do they run, papa?’

‘There are three forces, or kinds of power, which drive them. Some go by steam, which is produced by a small petroleum engine, some by compressed air, and some by electricity. Steam won in the race in France, but an electric carriage has been made to travel fourteen miles an hour and carry six persons. India-rubber tyres filled with air, like bicycle wheels, add to the smoothness of travelling. So, perhaps in the future we may see omnibuses running along the streets without any horses at all. Such vehicles may become as common to the sight, and popular in use, as the bicycle is now.’

‘It will seem funny to see carriages running along the streets without horses to draw them, or men to work the wheels,’ said Harry.

‘Well, now, if you have walked about the cliffs sufficiently, and also rested enough,’ remarked his father, rising from the seat which they had lately been occupying, ‘how would you like to have an hour’s sail on the river, and then there will be just time for tea before the steamer returns to London Bridge. How would you like that, mother?’

‘It would suit me well,’ replied the lady.

‘I think it will be jolly!’ cried Harry. ‘And I am sure dear mamma would like it too.’

‘Mamma,’ he added, as the little party walked to the pier to get on board a boat, ‘I think I must call these holidays the trip holidays, because I have had such nice trips, and heard so much about the ways we travel now.’

