

by Lucie Hášová Truhelková
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TRAINS



Albatros

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3 Locomotion No. 1

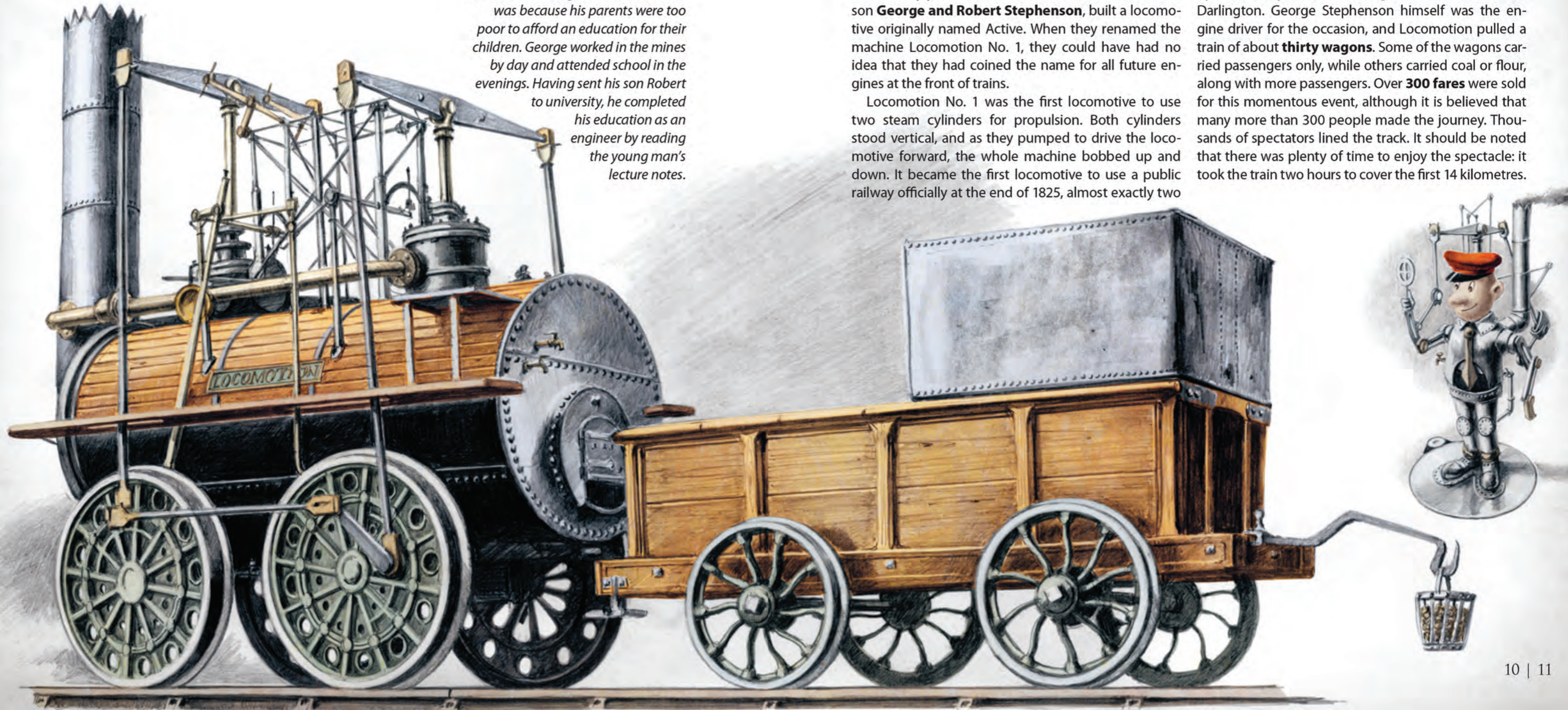
Just imagine...

...that George Stephenson first went to school at the age of seventeen! This was because his parents were too poor to afford an education for their children. George worked in the mines by day and attended school in the evenings. Having sent his son Robert to university, he completed his education as an engineer by reading the young man's lecture notes.

The 'steam engine' was renamed the 'steam locomotive' twenty years later, when two Brits, the father and son **George and Robert Stephenson**, built a locomotive originally named Active. When they renamed the machine Locomotion No. 1, they could have had no idea that they had coined the name for all future engines at the front of trains.

Locomotion No. 1 was the first locomotive to use two steam cylinders for propulsion. Both cylinders stood vertical, and as they pumped to drive the locomotive forward, the whole machine bobbed up and down. It became the first locomotive to use a public railway officially at the end of 1825, almost exactly two

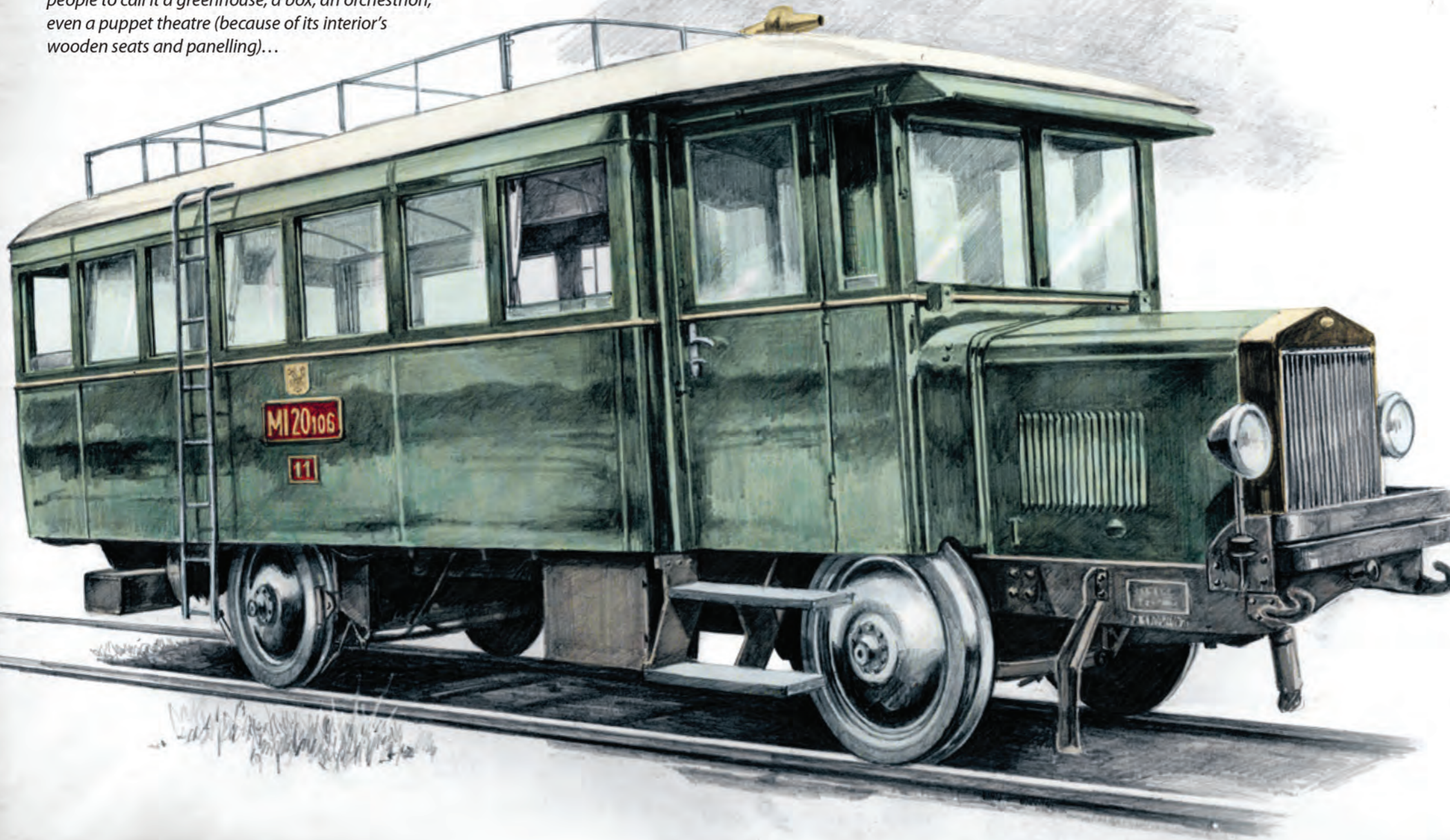
hundred years ago, when it travelled along the newly opened, **forty-kilometre-long line** from Stockton to Darlington. George Stephenson himself was the engine driver for the occasion, and Locomotion pulled a train of about **thirty wagons**. Some of the wagons carried passengers only, while others carried coal or flour, along with more passengers. Over **300 fares** were sold for this momentous event, although it is believed that many more than 300 people made the journey. Thousands of spectators lined the track. It should be noted that there was plenty of time to enjoy the spectacle: it took the train two hours to cover the first 14 kilometres.



7 Railbus

Did you know...

...that in the years of its service the railbus was given lots of nicknames? Its appearance and rocking progress inspired people to call it a greenhouse, a box, an orchestrion, even a puppet theatre (because of its interior's wooden seats and panelling)...



The supplementing of the main railway lines with branch lines provoked a scramble for lighter trains to transport passengers more cheaply to smaller towns and villages. This was already being done on roads by motor cars and small buses, but how about the rails? How about buses on them, too?

And so it happened: engineers came up with plans to combine rails and the bus, and the railbus – or railcar – was born. The one we see in the picture was based on a regular bus from the Škoda works in Plzeň, Czechoslovakia.

There were many advantages to the railbus. It had no need of a tender behind the engine to carry coal and water, nor of a stoker. Depending on its type, it could carry between **thirty and fifty passengers** and reach a speed of **60 km/h**, which was ideal. It could handle steeper sections of track. It had drawbacks too, of course. How could a bus on rails be **turned around** at the terminus? And as it had no buffers or couplers (a coupler is a device to connect carriages), it could not be attached to another train. In the case of some railbuses, such problems were solved by seating the driver not in the cab but on the side of the vehicle in a turret above the roof!



Did you know...

...that just before Christmas 2009 snow got into the ventilation system of the Channel Tunnel, causing technical problems that left 2000 passengers stranded in stationary trains? All ended well after these passengers were evacuated in groups of ten through an escape tunnel.



15 Channel Tunnel

If you were thinking that trains travel only through fields, forests and cities, think again; they travel under the seabed too! Having tired of crossing the channel between their countries by boat, the French and the English dug a tunnel underneath it. Actually, **there are three tunnels next to each other**. These tunnels are for trains – the first for the train there, the second for the train back, the third in case of an emergency. At their deepest point, the tunnels are **75 metres below the seabed**. They are 50 kilometres long. The tunnels were opened with a ceremony attended by the British Queen and the French President.

Each special Channel Tunnel train is composed of **two separable parts**, so that in case of need half of the train can leave the tunnel. Boarding a Eurostar train is not like boarding a train at an ordinary station. At the port, cars and buses drive on to the back of the train.



17 Car transporter



Motor cars have been transported by train from the start. Car-making factories were once connected to the railway by sidings, making it possible to send new cars by rail straight to their owners.

To begin with, cars were transported in large **wooden crates** loaded on to flatbed trucks. An increase in the number of motor cars brought a need for quicker loading and unloading, which was never going to happen with the cars in wooden crates. A special car-carrier wagon was required, and so it came into being. A car transporter is an open wagon with two decks. The upper deck is hinged and tiltable, and the cars are loaded on to both decks from a special ramp.

Modern car transporters have a **reduced lower part**, while the height of the upper platform can be adjusted to suit the height of the cars being loaded. State-of-the-art transporters are equipped with a **GPS locator**, allowing the customer to track the progress of the truck.



Did you know...

...that the route taken by a car transporter is subject to a special check to ensure that the train does not approach the destination from the wrong side? If it did, the cars would have to be reversed off the transporter...



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Long ago, the first locomotive was set down on a track before carrying its load to its destination at walking pace. Two centuries later, trains routinely race around the world at speeds of several hundred kilometres per hour. If you wish to know how it came to this, read this magnificently illustrated book. It shows the very most interesting trains, including an enormous steam locomotive called Big Boy, the distinguished Orient Express, the shunter locomotive, and Japan's Shinkansen. All aboard! This trip is too good to miss!

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