OVERVIEW

The history of the invention of the bicycle was a microcosm of the history of all inventions. It showed how true it was that there was really nothing new. Everything that was invented had been invented before by somebody who was either in advance of his time, and therefore found no immediate demand for his invention, or, possibly, had not the mechanical means for putting his invention into practice.¹

Henry Wood made the above comments at the Royal Society of Arts in London in 1897 in response to an address by George Lacy Hillier on ‘Cycling: Historical and Practical’, one of a series of technical papers on the history of the bicycle presented at the Society in the 1890s.² The speakers were major figures in the industry, and they had a particular vantage in looking back at the history of the bicycle’s invention from the point where its modern form had become stable, its popularity unquestioned and the future of the industry seemingly assured. As they addressed members of this august body, founded in the mid-18th century to encourage the arts, manufacturing and commerce, there might well have been an air of triumphalism. The bicycle industry and its many contingent enterprises were prospering, and here was an object lesson in how to bring innovative modern technology to the market with resounding success (at least until the slump of the 1900s, the result of overproduction).

It is clear both in this paper and John Kemp Starley’s ‘The Evolution of the Cycle’, presented the following year (discussed below), that the most instructive aspect of this lesson was the collaborative nature of the enterprise. The
bicycle industry could not have succeeded to the extent that it did without the contribution of venture capitalists or the modern factories that assembled mass-produced components from multiple sources, and the specialised skills of engineers and workers on production lines. This system of production also relied on the development of particular materials, including high-grade steel for wheels, frames, chains and ball bearings, and rubber for tyres. Beyond the factory gate, commercial success would then depend on promotion and marketing by distributors and advertisers, as well as sponsorship and endorsement by patrons and celebrities. It is not often realised that all of the above factors in the development of the modern bicycle arrived within a brief span (1870–1890), and coincided with the rise of modernity in the West. Primitive forms of the bicycle built by blacksmiths, coachmakers and amateur mechanics before this time were soon outmoded. The bicycle had now arrived as a definitive modern object, heralding and sometimes instigating the emergence of modern infrastructures that would radically alter social life. This chapter charts the technical development of the modern bicycle, but more importantly it sets its emergence within the social, economic and cultural contexts that shaped western modernity, and which in turn established the bicycle as a talisman of that modernity.

As a general concept, invention presupposes an original idea – it implies a ‘first’. As with other modern inventions – and for some of the same reasons – there have been many competing claims for the inventor of the first bicycle. While some of these claims stretch the definition of what actually constitutes a bicycle, others refer to concepts or machines that never progressed beyond designs and prototypes, and a few should be dismissed as hoaxes. Serious contenders for the first bicycle date back to the early 19th century, when the wooden hobby-horse, or ‘Draisine’ was introduced by Karl von Drais of Germany. As this was propelled by pushing the machine along with the feet in contact with the ground – in effect, a running-machine – it lacked several key features of the modern bicycle, and offered a very different riding experience. The first successful patent for a machine calling itself a bicycle was lodged in the US in 1866 by Pierre Lallement, who had, two or three years earlier, brought a pedal-driven ‘velocipede’ with him from France, where he claimed to have invented it. Paradoxically, rather than helping to establish a lead in the US, Lallement’s patent hampered the bicycle industry there for several decades. Much of the technical development of the modern bicycle as we know it today would take place in France and England between 1865 and 1885.

There are to this day many question marks over the history of bicycle development, and establishing provenance through the thousands of