

3. The Reception of the Front-Wheel-Driven Velocipede in Germany

At the 1991 conference, I was able to expose the Fischer velocipede claim (“as early as 1953”) as a fake, and to date that machine from contemporary sources at 1869. It should now be classified as Fischer’s personal modification of the French front-pedal-driven velocipede.¹ There are more German priority fakes centered around that period, e.g. the Mylius velocipede saga (“as early as 1844”) attached to a similar hand-built machine². After the latter was apparently destroyed in World War II, East German patriots quickly switched to a different machine, but it definitely appears to have been manufactured in 1869.³

With no systematic study available, I shall base the following survey of the actual velocipede experience in Germany on a scan through the nation’s illustrated weekly gazettes and the only two booklets of that time.^{4,5}

A novelty from Paris and New York

In 1868 the first articles on the craze in Paris appeared in the German weeklies *Über Land und Meer* and *Illustrirte Zeitung*. The accompanying illustrations showed a race at the Pré Catalan in Paris and a lateral view of a Parisian velocipede, respectively.

The builder of the latter was not identified as Michaux, whose name was not mentioned at all, but as an unspecified “Parisian mechanic.” Later in the year, the *Illustrirte Zeitung* reported on Hanlon’s “Improved Velocipede” (misspelt as “Hanton”) and other American inventions. The machines are designated by the German equivalent for “curriculum,” and also “quick-foot” (a literal translation of “velocipede”: evidently, the authors did not realize that the German von Drais had coined this term in 1818).

An article in a trade gazette⁹ of November 1869 states: “Barely three years have slipped by since various Parisian mechanics simultaneously showed the world that man is able to move on a machine with two wheels, without touching the ground otherwise....” Thus contemporary German knowledge dates the beginnings of the pedal-driven velocipede to 1866 or 1867.

The name Michaux first appears in 1869, in the advertisements of the Friedrich Maurer, a Viennese, and of Feise, a German manufacturer from Hanover. The latter boasted that, according to P.M.G. (whoever that is), he and Michaux were the ones producing the best velocipedes in Europe so far. Michaux’s inventions are also implied in drawings accompanying the patent application by a Berlin lawyer, now in the Prussian state archive.⁶ The German booklets of 1869 and 1870 also cite Michaux as the principal velocipede manufacturer.^{4,5} I found no mention of Pierre Lallement in any of these sources.

German Engineers Oppose the Velocipede

It is certainly no far-fetched assumption that the railway had “stolen the show” from the draisines by

Synopsis

Contrary to several national claims to priority, Germany’s enthusiasm for the velocipede was definitely imported from Paris and New York in 1868. Although the German engineering establishment, which had grown up with railway construction, tagged the renaissance of human-powered mobility as foolish, at least the official trade and industry promoters of Badenia and Württemberg, remembering the draisine, realized its economic potential. Younger entrepreneurial mechanics and engineers took up the manufacture of velocipedes, but the industry came to a standstill even before the Franco-Prussian war of 1870-71.

usurping their idea of personal mobility. This fact shines through in the foreword of Steinmann's velocipede booklet⁵ of 1870: "The railway goes faster, no doubt, but it has a mechanical, brutal, unintelligent velocity, whereas the velocipede has a speed that originates directly from man and is a personal one, that is, exerted at the fancy of will, that replaces itself and is produced from the power of muscles. 'The measure is man,' says an important scientist."

As a result, the class of German engineers who had prospered with the construction of railways sneered at velocipedes. Moritz Rühlmann of the Hanover Polytechnic wrote in his textbook on engineering in 1868: "All those who use human power for the propulsion of such vehicles are people who have either learned nothing or forgotten everything."⁷ The mistrust of the German engineers was deep-rooted indeed. Their journal, the *Polytechnische Journal*, banned cycling technology from its pages till 1895, and in the last century no cycling book was written by a German engineer. The German cycling literature focused instead on the physiology of cycling—since doctors, at least, did write about cycling.

Promoters of a Budding Industry

At that time at least two German states had governmental institutions to promote trade and industry: Badenia and Württemberg (a single federal state today). In Stuttgart and Karlsruhe the leading figures were Ferdinand von Steinbeis (1807–1893) and Heinrich Meidinger (1831–1905), respectively. Both had exhibited velocipedes in their trade shows (the Stuttgart specimen was a Compagnie Parisienne), hoping to incite local manufacturers to build similar vehicles.^{8,11} Moreover, their trade gazettes featured articles on the new contraption which compared them to the old draisines^{9,10} and attempted to define the practical value of the new velocipede.

Meidinger in particular was evidently bitten by the bug. He rode the machine himself hoping thereby to remedy his migraine. Curiously, he would oppose the Drais veneration of 1891, when German cycling clubs collected money to transfer the inventor's mortal remains to a new cemetery. At the age of sixty, Meidinger wrote an advisory booklet titled *About Inventing* based on this case.¹¹ It became the source of the German disparagement of Drais in this century.

German Manufacturers

Even before the trade institutes exhibited samples, some entrepreneurial mechanics had started manufac-

turing their own velocipedes. According to the advertisements in *Illustrirte Zeitung* the following chronological list can be assembled:

- Tewes & Comp., Harburg (near Hamburg), 31.10.1868
- Erste deutsche Vélocipèdes-Fabrik Stuttgart, C. F. Mller, 3.1.1869
- Heinrich Büssing, Braunschweig, 6.3.1869
- Vélocipèden-Compagnie, Braunschweig, 17.4.1869
- J. V. Albert, Spielwarenhandlung, Frankfurt, 1.5.1869
- Carl Feise, Hanover, 5.6.1869
- Vélocipèdes-Fabrik Voigt & Qwack, Dresden, 5.6.1869
- Ed. Hennings, Fabrikant, Berlin, 5.6.1869
- A. Natalis & Co., Braunschweig, 10.7.1869
- E. Hahn'sche Vélocipèdes, Georg Gutbrod, Stuttgart, 14.8.1869
- F. W. Schurath, Leipzig, 30.10.1869

Without a follow-up at the local archives, it is difficult to distinguish the dealers (e.g. Albert in Frankfurt) from the manufacturers (e.g. Müller in Stuttgart). Some of the names, such as Tewes, Hahn and Gutbro, sound like later brands in the automotive industry, but only in the case of Heinrich Büssing (1843–1929) do we definitely have a match. Büssing eventually became a leader in bus manufacture (the company later merged with M.A.N., whose buses are now used, for example, in the Los Angeles public transport system).

We only have one German photograph from this period, showing Büssing sitting in front of a Michaux-type three-seater. The manufacturer's line included 2- and 3-wheeled velocipedes for ladies, gentlemen and children, two-seaters, water velocipedes and velocipede carousels. The Helms-Museum in Harburg has a drawing by machinist F.W.A.C. Just (1827-1870) showing a two-seater. It was possibly an element of the velocipede carousel he had built with Tewes, according to oral testimony given by his daughter in 1926 (and which, incidentally, created yet another German priority myth).¹²

The Franco-Prussian War was declared in July, 1870 and lasted until February 1871. Although the war spelled the end of the German velocipede manufacturers, their demise was apparent even beforehand. Mller in Stuttgart, for example, advertised the closing of his factory in 1869 (although he also advertised a new one in April, 1870). By June of 1870, Büssing had completely closed down his velocipede

manufacture, opening a mechanical engineering institute in its place.

What Specific German Designs Were Developed?

This question is hard to answer with precision, since the illustrations in the period advertisements are not very distinct, and no typology of existing velocipedes is available thus far. I am still unable to verify, for example, if the velocipede in the Bergwerksmuseum of Clausthal-Zellerfeld attributed to Büssing is in fact of his origin. A replica of it stands in his birthplace in Wolfsburg-Nordsteimke,¹³ but its curved headset was apparently also used by Schurath of Leipzig.

Fortunately, the editorial section of the *Illustrirte Zeitung* is more bountiful than its illustrations. The first issue of 1869 presents a "newer draisine" by cartwright Richard Voigt of Dresden. It has the seat hovering over the cranks, similar to the later "Grand Bi" (High Wheel). The brake is operated by a movable backrest. After mounting the velocipede, one could adjust the stays by pulling cords. Six months later, however, the production models of the firm Voigt & Qwack appears to have reverted to more conventional designs.

The journal also invited readers themselves to submit designs that could be propelled by either hand or feet alternatively at will. An anonymous reader offered a tricycle design, which appeared in the issue of June, 1869. A French patent for a similar front wheel drive was obtained by Sargent the following July.¹⁴ Either or both of these concepts must have influenced the Trefz velocipede patented in 1870 and described in a March issue of the *Illustrirte Zeitung* that year.¹ The same article presented an improved steering device in the velocipedes made by Kessler of Siegburg. They also featured a twist-handlebar brake acting on the front wheel. The New Velocipede attributed to Hannes of Deutenhofen near Munich was a tricycle with free-wheeling rear wheels and variable leverage of the pedals.

The Patent-Velocimobile, a tricycle of Natalis & Co. of Braunschweig, inspired by MacDonald's U.S. patent, offered combined steering in which the rear axle was rotated to offset the rotation of the front wheel and handlebar (June, 1869). The "velocipede for the ripe years" of an unnamed inventor has automobile-like features such as a boat steering wheel acting on the rear axle and a crank brake. Foot treadles act on the front wheel (September, 1869). The velocipede of Schurath of Leipzig (Fig. 9) is a tricycle with a cranked rear axle operated by foot levers (October

1869). The booklet of Steinmann⁵ even shows a similar four-wheeled "draisine" by Braun of Reichenbach.

Who Were the Riders?

The young technological avantgardists of the time. One, the automobile inventor Karl Benz of Manheim, who had just founded his own workshop, represented this type of entrepreneurial mechanic, as did Heinrich Büssing of Braunschweig. But, to be honest, we do not know the names of many German riders other than the manufacturers themselves. Nor were there any women among them, it would appear.

Velocipede riding was forbidden on German sidewalks and promenades,⁵ so there was a need for rider organizations to practice the sport. Clubs were formed in the larger cities such as Hamburg, Braunschweig, Hanover, Leipzig, Mannheim and Stuttgart, which generally coincide with the chief manufacturing sites. Among the goals of these clubs were the building of racetracks and the organization of races. It is not known if any race tracks were actually built during the short timespan preceding the war, or, if there were, whether they were modeled after skating rinks.

Why Such Slow Progress of Cycling?

I have already mentioned that the railway era "stole the show" from draisines and usurped their idea of personal mobility. Moreover, the contemporaries of Drais, with the possible exception of a few ice skaters, evidently abhorred the idea of balancing on two wheels and thus the machine's propagation was impeded.

Nevertheless, some tinkerers, inspired by the draisine, began to develop the roller skate. The breakthrough came in 1863 with the American roller-skate patent of James Leonard Plimpton, which made its owner a multimillionaire. He opened skating rinks in New York (1863), Newport (Rhode Island), London's Crystal Palace (1865), and so on. All of a sudden, people had learned to balance on wheels without the possibility of putting a foot on the ground in an emergency. This experience must have enabled the Parisian mechanics to take their feet off the ground on the velocipede, too.

Roller skating became a social sport well suited for women, whereas velocipeding was too strenuous, especially for women.¹⁵ With more skating rinks opening in Europe, roller skating, in turn, "stole the show" from velocipeding. "Roller skating is in fashion. It has replaced advantageously the velocipede,"

wrote a French author in 1876 in his book on the new sport.¹⁶

And, indeed, the brief German experience with the velocipede had come to a permanent end.

Notes

1. H. E. Lessing. "Around Michaux: Myths and Realities – Towards a new Chart of early Bicycle History." *Proceedings of the 2nd International Cycle History Conference*, St. Etienne, 1991.
2. M.J.B. Rauck, G. Volke, F. R. Paturi. *Mit dem Rad durch zwei Jahrhunderte*. Aarau: AT-Verlag 1979, page 32.
3. D. Grassmuck. *Heinrich Mylius – Bürgerlicher Demokrat, Mechanikus und Mußdardichter. Beiträge zur Heimatgeschichte des Bezirkes Suhl - Ergebnisse und Persönlichkeiten*. Suhl, 19??, pp. 39–55.
4. Hippolyt de Wesez. *Erste deutsche illustrierte Vélocipède-Broschüre*.
5. Gustav Steinmann. *Das Velocipede*. Leipzig: J. J. Weber, 1870.
6. According to a card in Feldhaus Archive, Berlin.
7. Moritz Rühlmann. *Maschinenkunde*, Vol. III. Hannover, 1868, p. 244.
8. *Gewerbeblatt aus Württemberg*. 1869.
9. *Gewerbeblatt aus Württemberg*. 1869. *Die Draisineen*. pp. 89-90.
G. Heim. *Über den praktischen Werth des Velocipedes*. pp. 458-462.
10. *Badische Gewerbezeitung*. 1869, table III (drawings only, the accompanying text was not printed due to the Franco-Prussian war).
11. Heinrich Meidinger. *Vom Erfinden*. Karlsruhe 1892 (uses the drawings of ref. 10).
12. Rüdiger Articus. "Das Fahrrad – Eine Erfindung aus Harburg?" *Harburger Jahrbuch*. 18/1993 pp. 99–112.
13. Martin Diener. *Bayerische und Braunschweigische Schnelfüßler*. M.A.N. archive, Munich 1990 (full of German priority fakes).
14. Jacques Seray, *Deux Roues. La véritable histoire du vélo*. Millau: Éditions de Rouergue, 1988, p. 100.
15. Norman L. Dunham. "The Bicycle Era in American History." Thesis, Harvard University, 1956, p. 111.
16. H. Mouhot. *La Rinkomanie*. Paris, 1876.