13.

The Velocipede of 1819 in America

Hans-Erhard Lessing

The title of this presentation, as well as most of its content, has been taken from an unpublished Harvard University History Ph. D. thesis from 1956 by Norman L. Dunham entitled "The Bicycle Era in American History." I refer particularly to his second chapter, and have added pictures and other materials. This American story contributes a further piece of evidence to the theory that riding velocipedes on footpaths was forbidden by authorities worldwide, thus ending their use.

In his preface, Dunham wrote: "When I chose The Bicycle Era as my thesis topic under the direction of Professor Schlesinger, he told me to cover 'everything' on the subject, as I was to be 'the authority' on the vehicle in the United States."[1] And so he did; Dunham read every period newspaper from the East Coast and filled 570 typewritten pages — it is a pity indeed that this extensive research has never been published and I want to pay due respect to its author, who is no longer with us. His professor, Arthur M(eier) Schlesinger (1888–1965), was a pioneer historian in social and urban development in the United States, establishing a new Ph.D. program at Harvard in the history of American civilization. He knew apparently how to motivate his graduate students to do the utmost. His son, Arthur M. Schlesinger Jr., also a historian, became consultant to the Kennedy administration.

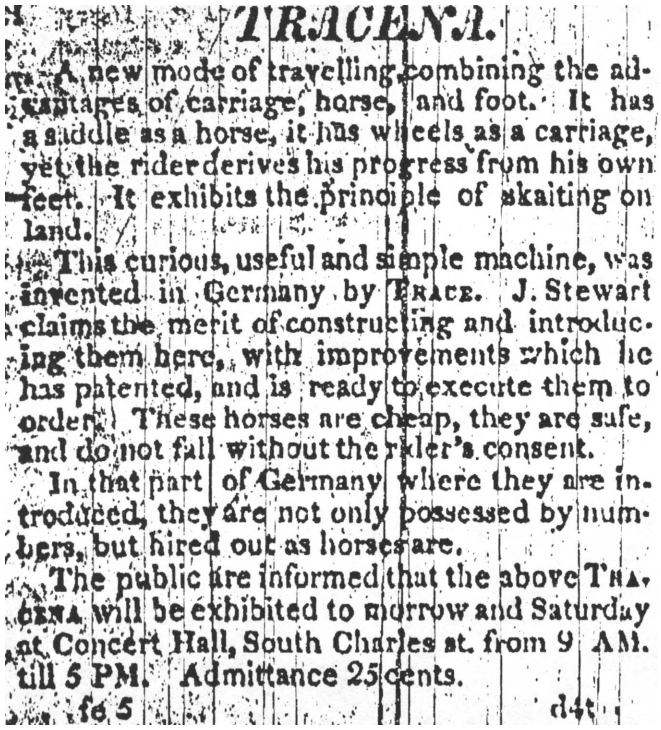
Fig. 13.1. Norman L(eslie) Dunham (1907–1966) was born in Detroit and obtained an A.B. from Oberlin College in 1929, where interestingly enough a Master's thesis on the bicycle in American history was presented by a William Mariboe in 1941 (Duncan F. Jamieson, personal communication). The next information on Dunham we have is the Ph.D. at Harvard in 1956. From 1958 until his untimely death, he was a faculty member of the social sciences department at Benedict College, Columbus, Ohio, in the end as the chairman. Unmarried, he was survived by a brother and a sister aged 104 and 96, respectively. (Courtesy Benedict archive.)

On the morning of 5 February 1819, the citizens of Baltimore read in their local newspaper[2] an unusual advertisement: "TRACENA" (Fig. 13.2) — and one understands the meaning of the word a few lines later: "This curious, useful and simple machine was invented in Germany by TRACE" — which of course means Karl Drais (1785–1851), whose name was noted down here phonetically.[3] And it goes on: "These horses are cheap, they are safe and do not fall without the rider's consent" — most people know better meanwhile.

The advertiser was James Stewart, piano manufacturer of Baltimore, who had quite a reputation, as we can see from his entry in the *New Grove Dictionary of Music*.[4] (Fig. 13.3) He came from London, joined his brother in Baltimore, went on to Philadelphia, then Boston and finally returned to London in 1826. According to Dunham, he built not only the first velocipede of Maryland, but of the United States as a whole. More advertisements for the exhibition of the two-wheeler followed, unfortunately without any picture, soon attracting a famous visitor.[5]

Below: Fig. 13.2. Earliest known U.S. advertisement for a draisine. (From Ref. 2, courtesy of Maryland Historical Society.)

Right: Fig. 13.3. James Stewart's entry in the New Grove Dictionary of Music.



TRACENA.

A new mode of travelling, combining the advantages of carriage, horse, and foot. It has a saddle as a horse, it has wheels as a carriage, yet the rider derives his progress from his own feet. It exhibits the principle of skaiting on land.

This curious, useful and simple machine, was invented in Germany by TRACE. J. Stewart claims the merit of constructing and introducing them here, with improvements which he has patented, and is ready to execute them to order. These horses are cheap, they are safe, and do not fall without the rider's consent.

In that part of Germany where they are introduced, they are not only possessed by numbers, but hired out as horses are.

The public are informed that the above TRACENA will be exhibited to morrow and Saturday at Concert Hall, South Charles st. from 9 AM. till 5 PM. Admittance 25 cents.

fe 5 d4t

Charles Willson Peale (1741–1827), a noted artist then 78 years old (Fig. 13.4), saw the velocipede in Baltimore on his way home from Washington. Peale portrayed all the celebrities of his time, among them the President of the United States, George Washington. In 1802, he had opened the first American museum in Philadelphia, retiring in 1810 to the labours of his farm "Belfield" near Germantown, which is part of Philadelphia today (Fig. 13.5). Back home,

Stewart, James (*b* ?Scotland, late 18th century; *d* ?London, ? after 1860). British piano manufacturer. He trained as an organ builder in London, and went to Baltimore, Maryland, in 1812 to join the piano manufacturing business of his brother Adam Stewart (who had learnt his trade with the London Clementi firm). When this partnership ended in March 1813 James continued to build both pianos and organs in Baltimore until June 1819, when the Philadelphia newspapers announced the establishment of the piano rooms of 'James Stewart from London, late of Baltimore'. The Philadelphia city directories list James in business there from 1820 until 1822, along with a Thomas Stewart. Although some sources place James in the Boston piano shop of John Osborne as early as 1820, little mention is made of him there until November 1822, when the periodical *The Euterpeiad* praised a piano 'at the manufactory of Messrs. Osborn and Stewart' which had an improved, detached soundboard invented by Stewart ('recently arrived in this City from Philadelphia') and patented by him on 14 November 1822. In 1823 Stewart joined with one of Osborne's apprentices, Jonas Chickering, to form the firm of Stewart & Chickering, a partnership that was dissolved when Stewart returned to London in 1826.

Taking with him several pianos made by Stewart & Chickering, Stewart joined the London firm of Collard & Collard, where he is said by Spillane to have served as foreman for more than 35 years. In England he was granted seven patents dealing with piano improvements, the most influential being no.5475 (17 September 1827), which formed the basis of modern stringing by replacing two unison strings (each secured with a loop to its own hitch-pin) with one continuous wire of double length passed around a single hitch-pin.

Most of Stewart's pianos have a range of *F* to *c''''* and most have wooden frames. A Stewart & Chickering instrument at the Smithsonian Institution has a metal plate on the right to which the hitch-pins are secured; the soundboard extends across the entire length of the keyboard, while on most instruments it extends over only the top octave. Stewart's instruments are of fine workmanship and were praised in their day as 'unrivalled in tone, touch, and action'.

BIBLIOGRAPHY

D. Spillane: *History of the American Pianoforte* (New York, 1890/*R*1969), 30, 42, 57, 127, 142, 157

R. E. M. Harding: *The Piano-forte: its History Traced to the Great Exhibition of 1851* (Cambridge, 1933, rev. 2/1978)

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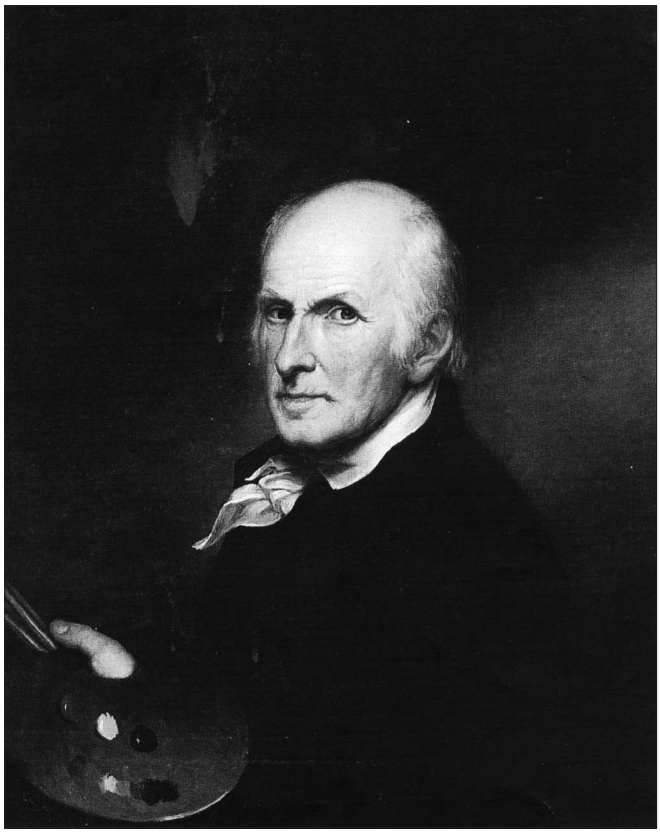
he started building a velocipede himself after he had found a print of the British one in Aitken's repository (unlocated) [Possibly *Ackerman's Repository* — Ed.]. He cannibalised a self-built threshing machine and used its iron parts to build the first velocipede in the state of Pennsylvania. Then, to attract visitors, he put the velocipede into his museum in Philadelphia, now run by his son Rubens (Fig. 13.6); all of his sons bore famous painters' names as first names.



Above: Fig. 13.4. Velocipeder Charles Willson Peale (1741–1827), self portrait in 1822. (From Ref. 6.).

We know all this from his many letters and from his autobiography mainly based on these letters.[6] Fig. 13.7 shows a page from a letter by him with a velocipede scribble, resembling Johnson's later direct-steering velocipedes. He writes that he had to find the optimum wheel size himself. Moreover, he transferred a revolution counter from his buggy to the hind wheel of the velocipede to measure tracks on his farm. To this end, the hind wheel was made exactly half the diameter of the buggy wheel.

A pencil "Sketch of the Draisine," 4 in. by 6 in., made by Peale in 1819, is kept at the American Philosophical Society (Fig. 13.8). This one is more like the early Johnson's velocipede with its so-called indirect steering. Soon his sons built their own machines, some completely of wood, which turned out much lighter than their father's machine and one source — though not a period one — claims that even Peale's two daughters tried the machine. Also competition arose: a Mr. Chambers advertised a display of his velocipede, and there was an additional "Draisena Exhibition" in the Grand Saloon of Washington Hall in Philadelphia by an anonymous exhibitor.

Yet in June, news of the London ban against velocipeding on footpaths had reached the United States, and shortly after, we find the following newspaper item in Philadelphia: 'A gentleman was accused of having rode on a two-wheeled carriage or vehicle

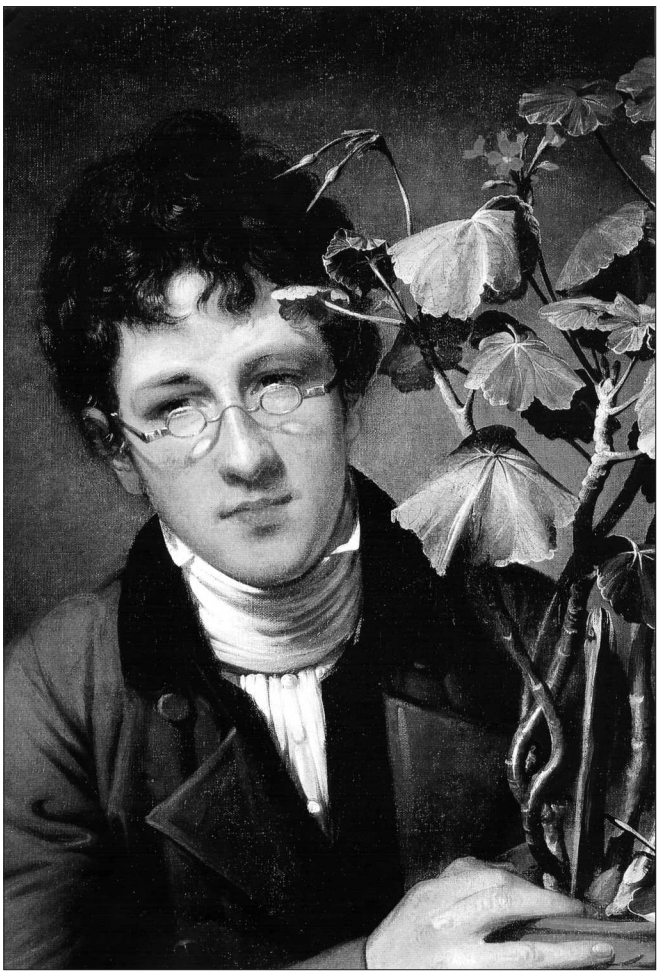
Right: Fig. 13.5. View of the Garden at Belfield, painted by Charles Peale 1816. (from Ref. 6.)

on the foot pavement, contrary to the 5th section of the ordinance of October 1st, 1811. It appeared that the vehicle on which the defendant did ride was the recently much celebrated Velocipede. He was convicted and fined three dollars and the costs.' Peale writes in his autobiography about velocipeding on the sidewalk: 'This meant offence to some ill-natured person, who rummaged up an old Law of the Corporation which to prevent damage to the pavements had a penalty of 3 Dollar for each time that a two-wheeled cart went on the foot or side pavement, and urged a constable to take a young man before the Mayor for breach of said law… Since this spiteful process, the velocipede has not been in the streets of Philadelphia.'

Thus we have yet another case where velocipeding was suppressed by the authorities. Thus, a number of bans were put into effect, as follows:

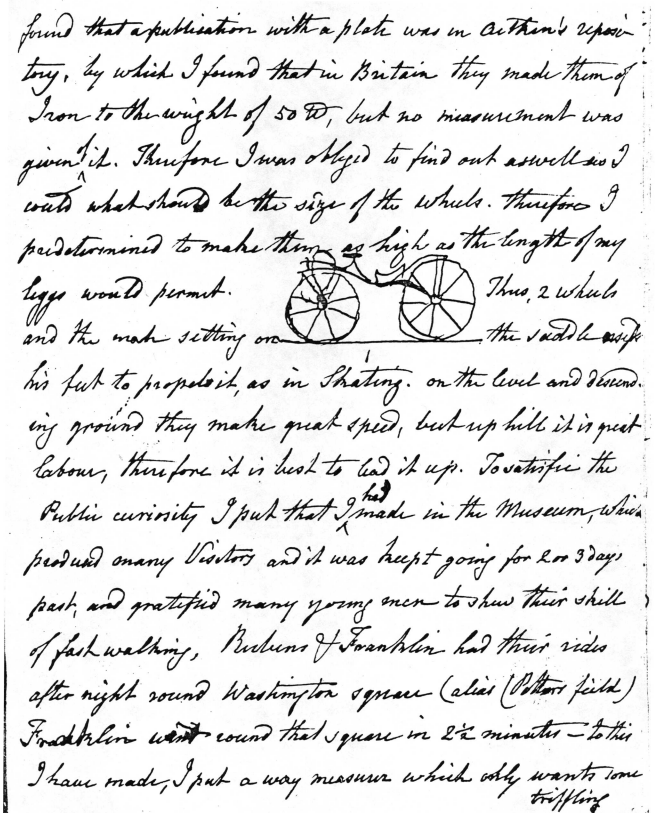
- ❒ Mannheim 1817: riding forbidden on sidewalks.[7]
- ❒ Milan 1818: riding forbidden on sidewalks (i.e. not the faked ordinance of "1811").[8]
- ❒ London 1819: putting down the velocipede by fines.[9]
- ❒ Philadelphia 1819: riding forbidden on sidewalks (see above).
- ❒ New York and New Haven 1819: riding forbidden on sidewalks.[10]
- ❒ Calcutta 1820: riding forbidden on the Respondentia Walk.[11]
- ❒ Mannheim1822: riding forbidden in castle garden (after Drais left for Brazil).[12]

Consequently, velocipeders were forced onto the unridable center track, rutted by carriages. Thus far, authors (for example, Roger Street) have tended to downplay the severity of obstruction by the authorities.[13] It now appears, there is enough worldwide evidence to advance the theory that velocipeding did



Right: Fig. 13.6. Velocipeder Rubens Peale (1784–1865), painted by Charles Peale. (From Ref. 6.)

Below: Fig. 13.7. Page from C. W. Peale's letter to Charles Peale Polk in Washington, May 16, 1819. (Courtesy of American Philosophical Society.)


found that a publication with a plate was in Arthur's Upholstery, by which I found that in Britain they made them of Iron to the weight of 50 lb, but no measurement was given of it. Therefore I was obliged to find out as well as I could what should be the size of the wheels. therefore I predetermined to make them as high as the length of my legs would permit. Thus, 2 wheels and the man sitting on the saddle as in his seat to propel it, as in Skating. on the level and descending ground they make great speed, but up hill it is great labour, therefore it is best to lead it up. To satisfy the Public curiosity I put that I had made in the Museum, which produced many Visitors and it was kept going for 2 or 3 days past, and gratified many young men to shew their skill of fast walking, Rubens & Franklin had their rides after night round Washington square (alias (Potters field) Franklin went round that square in 2 minutes — to this I have made, I put a way measure which only wants some trifling

not end because of any mediocrity of the machines — a deep-rooted misconception — but was in fact actually forbidden by the authorities

And there is the assumption that this was repeated again in most countries around 1870. Thomas Stephens Davies, in his lecture before the Royal Military Academy, stated twenty years later in 1837: 'Why, the steam engine itself never could have stood against so powerful and united a body, all in one mind too and acting together with an unanimity truly wonderful'.[14] Davies included with the constables, the fat men, the watchmen, the old women, the great men, the rabble, the King's ministers, and the horses. It is definitely realistic to see cycling from the very beginning as a perennial struggle with the authorities.

Dunham has more news of other cities on the East Coast. He reports nothing on the West Coast, either because he did not read those newspapers, or because he could not find velocipede news therein. But further north, in Boston, a Mr. Salisbury has constructed one of these 'inanimate animals' and exhibited it as well, see Fig. 13.9.[15] Numerous Harvard students rode velocipedes over the long bridge at moonlight, (because it was forbidden in the daytime?) between Boston and Cambridge; one of them, Charles Sumner, becoming later a renowned senator. In New Haven, Yale students were reported using it and there was a gala-day in the City Hall.

But New York especially became excited — the manufacturers evidently could not meet the demand for a while. And the *New York Evening Post* remarked (unlocated) that: 'Horses, in England, have fallen 40 percent in consequence of the sudden appearance of these velocipedes.'[16] The quoting Boston paper continues: 'This price decrease occurred because these animals eat neither hay nor grain, require no currying, and were never known to kick or bite, qualifications which never met together in a prancing nag; therefore sell your vulgar old-fashioned quadrupeds before they are entirely out of date, and bestride a DANDY hobby-horse.' Yet the city fathers of New York prohibited their use, to the consternation of the riders, and New Haven threatened similar action.

Of course, some of Dunham's reflections no longer hold, for instance his speculation that as a master

THE DRAISENA.

AMBROSE SALISBURY, Wheelwright and Chaise Maker, first introduced into this town, Machines similar to the one described below; and of which the plate will convey some idea; he has manufactured two, which may be examined at his Shop in Water-street, where the manner of using them will be explained. It is called Draisena, from the name of the Inventor. May 7.

Above: Fig. 14.9. Early ad in Boston. (From Ref. 15, courtesy Mugar Memorial Library, Boston University.)

Left: Fig. 14.8. Sketch of the Draisine by Charles W. Peale in 1819 (4 x 6 inches). (Courtesy American Philosophical Society.)

of forests, Drais originated the device to aid him in walking while performing his official duties. However, Drais was a city-dweller at the time, and the invention was more likely his reaction to horses' starvation. In an Appendix on predecessors of the draisine, Dunham presented the De Sivrac myth, although Richard Walter Jeanes had debunked it six years earlier in an unpublished thesis at the Paris Sorbonne.[17] This cannot detract from Dunham's tremendous achievement in collecting period sources in newspapers, and his thoughtful evaluation of these up to the introduction of the safety bicycle. Putting his 570 pages of typescript onto a disk or CD ROM would create a valuable research tool that could easily be searched for any term.

In spite of all this prosecution by the authorities, painter Peale, aged 78, formulated a surprisingly modern-sounding praise for the velocipede in one of his letters: 'It was my custom to rise at day breaking, prepare my colours and paint before breakfast, and when my back began to complain by my close application, I then would mount my velosipede and make half a dozen turns round some squares of the Garden, which is excellent exercise & soon restored me with powers to go on with my labours.'[18] Velocipeding was restricted to private gardens by then.

Endnotes

1 Norman L. Dunham, "The Bicycle Era in American History"; unpublished Ph. D. thesis, Harvard University, 1956.

2 *American and Commercial Daily Advertiser*, February 5, 1819 (Baltimore).

3 During the Badenian Revolution in 1849 Baron Karl von Drais relinquished his nobility titles in a newspaper advertisement signed "Karl Drais, professor, citizen and member of the sovereign German people"; see H. E. Lessing, Automobilität — Karl Drais und die unglaublichen Anfänge, Leipzig 2003.

4 Stanley Sadie Ed., *The New Grove Dictionary of Music and Musicians*, 14th edition London 1995.

5 *American and Commercial Daily Advertiser*, daily Feb.8–15 (Baltimore) Tracking the advertisements is owed to Francis O'Neill of the Maryland Historical Society, with thanks.

6 Lillian B. Miller Ed., *The Selected Papers of Charles Willson Peale and his Family*, vol. 3: The Belfield farm years, 1810–1820 (New Haven, 1983); vol. 5: The Autobiography of Charles Willson Peale, New Haven 2000.

7 Bernhard Dollmätsch (Hg), *Sammlung sämmtlicher Gesetze, Verordnungen, Verfügungen und Anordnungen*. Karlsruhe 1836, pp. 374, 379/382.

8 Direzione Generale della Polizia 3.9.1818: "E proibito il girare nottetempo sui velocipedi per le contrade, e per le piazze intorno della Citta", quoted in: Angelo Gardellin, *Storia del Velocipede e dello Sport ciclistico* (Padova, 1946); see also Roger Street, "Curiouser and curiouser — the Milan velocipedes of 1811 — did they really exist?" *Cycle History Conference Proceedings*, Vol. 12. San Francisco 2002. See also Giuseppe Genazzini's contribution therein.

9 *Gentleman's Magazine* (London), March 1819.

10 Anon., "Velocipede Notes," *Scientific American* XX (Feb. 27, 1869), 131 (Dunham adds that the author recalled the banning of velocipedes with indignation).

11 *The Times*, 18 May 1820 (communicated by Nicholas Clayton): "It would seem that the dandies of Calcutta mounted on their velocipedes have become rather troublesome to the worthy citizens of that metropolis. The following general order has in consequence been issued. 'General orders by his Excellency the Most Noble Governor General, is pleased to direct that in

12 See Ref. 7.

13 Roger Street, *The Pedestrian Hobby-Horse*. (Christchurch, 1998), p. 80.

14 Thomas Stephens Davies, "On the Velocipede," May 1837. Lecture given to the Royal . Military Academy in Woolwich. Manuscript R.1.68 in Trinity College Library, Oxford. Reprinted # 109 and #111 of *The Boneshaker*, The Journal of the Veteran-Cycle Club, 1985.

15 *New-England Palladium & Commercial Advertiser* (Boston), May 21, 1819. Tracking the advertisement is owed to Ben Hood of Mugar Memorial Library, Boston University, with thanks.

16 Quoted by the *Boston Intelligencer & Evening Gazette*, June 19, 1819.

17 Richard Walter Jeanes , "Des origines du vocabulaire cycliste français," Paris 1950.

18 See Ref. 6.