

6.

Confessions and New Acknowledgements about the Tambora Hypothesis

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The International Cycling History Conferences were founded to debunk the hoaxes of bicycle history, they were not founded to establish a new one! It was a great success when Hans-Erhard Lessing debunked the hoax of the alleged bicycle of Leonardo da Vinci in CYCLE HISTORY 8 in 1997. I then had my own research into the matter, which was different, but with the same result – just pointing out that: ‘Leonardos’ bicycle was drawn with a pencil in the Codex Atlanticus; Pencil-lead is made of graphite and graphite was discovered 45 years after Leonardo’s death (1519) in Cumberland/England in 1564. This also proved that the bicycle-sketch was not from Leonardo’s time¹.

In discussions with Lessing, the only point of dissent was over the date of the fake. He said it must have been after 1967, my belief was for it to have been in the first half of the 20th century. So much for the background of the communication between Lessing and myself prior to the airing of the Tambora Hypothesis. In the case of the Tambora Hypothesis put forward by Lessing, we have diametrically different estimations. To maintain the conversation within the bounds of gentlemanly discourse, therefore it is necessary

to examine the matter using strictly scientific standards.

The Tambora Hypothesis makes claim that the eruption of Tambora, a volcano in what is now Indonesia, in 1815 was the big bang behind the invention of the two-wheeler two years later in Mannheim/Germany by Karl von Drais. But is there any proof for it?

My lecture will show that said hypothesis is constructed with the help of significant errors and scientifically incorrect reasoning. The first big error came when the originator of the hypothesis misunderstood an article in the newspaper, ‘Mannheimer Intelligenzblatt’ of 24 June 1817 [Figure 1], which contained some old-fashioned expressions: this originator did not know and did not research the meaning of the old German word ‘Getreidesperre’ (It meant ‘corn export ban’ to stop border crossing speculation and to protect the corn store inside the country). The originator has confessed that he felt free to take the word as ‘corn shortage’² [Figure 2]. Note that a corn export ban is an administrative act, a corn shortage is something different; furthermore, the Originator did not know and did not research the contemporary meaning of the German

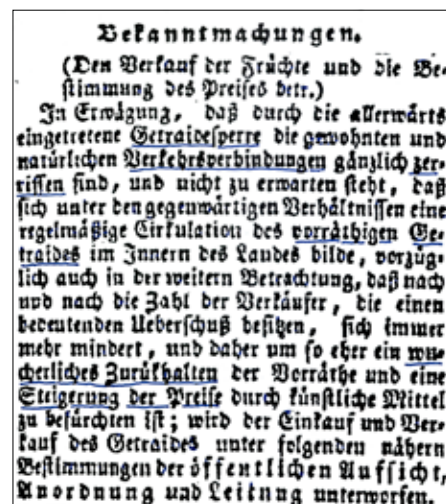


Figure 1. Notification in the ‘Mannheimer Intelligenzblatt’ of 24 June 1817 about totally disrupted trade relations because of corn export bans everywhere to stop border crossing speculation.

word ‘Verkehrsverbindungen’, meaning ‘trade relations’, ‘trade connections’ or ‘trade links’ (this was translated as ‘traffic or transport relations’, which is an extended modern meaning that previously was unknown); finally, he did not research the condition of horses in Mannheim during the time of the invention of the running machine – an unpardonable neglect, when he asserted “obviously there were no draught horses at hand any more”³. Instead, I examined horse activities in Mannheim at that time, as presented in my lecture in CYCLE HISTORY 28/p. 17. Also The Originator provided a fantasy translation of part of the article, which he said read “By the present universal corn shortage, the usual and natural transport links are totally disrupted and a regular circulation of corn supplies to [??] the interior of the country

1 Jost Pietsch. The Boneshaker #147, Leonardo update, summer 1998, p. 25/26.

2 Hans-Erhard Lessing. The Boneshaker #198, Response, summer 2015, p. 7/8.

3 *ibid.* p. 8.

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RESPONSE
Hans-Erhard Lessing

As a non-native speaker I usually read English prose only if I need to. This may explain, but not excuse, my negligence of not reading and correcting articles after they have been printed, eg in *The Boneshaker*.¹

So I was absolutely flabbergasted when Jost discovered in my paper² from the ICHC at Osaka in 2000 a rather foolishly incorrect quotation:

Mannheimer Intelligenzblatt
24 June 1817:
..... In 1817, a newspaper in Mannheim, which had a Rhine harbour, wrote that 'by the present universal corn shortage, the usual and natural transport links are totally disrupted and a regular circulation of corn supplies to the interior of the country is not possible because so many horses have been slaughtered because of the scarcity of fodder.'

Due to a recent hard-disk crash I no longer have the text sent in, but I am pretty sure that I wanted to state was:
..... that 'by the present universal corn shortage, the usual and natural transport links are totally disrupted and a regular circulation of corn supplies to the interior of the country is not possible' – because so many horses have been slaughtered because of the scarcity of fodder.

at first a fake quotation to pretend a not existing proof of mass slaughtering

¹ Cycle History 11 'What Led to the Invention of the Early Bicycle?' (2000) pp28-36, quotation on p33.
² *Mannheimer Intelligenzblatt*, 24 June 1817,
³ *Automobilität*, Hans-Erhard Lessing, Leipzig, 2003, p138.

That is, the translated quotation³ within quotation-marks followed after the dash by my conclusion. I admit that it would have been wiser to spend a sentence or two on that instead of appending it in a journalistic manner. Conference goers know that they receive no proofs of their articles, to save time and postage. We relied at that time on the benign dictatorship of Andrew Ritchie who kindly edited the proceedings with the benefit that non-native speakers' articles were transformed into decent English prose. Possibly it was he who shifted the ending quotation-mark for a better understanding? Yet needless to say, that in further German writing⁴ I always used the correct quotation.

CORRELATION AND CAUSALITY

There has been considerable disbelief in my theory of the draisine having been intended to replace starving horses – mainly due to the lack of a statement by the inventor himself. The period gazettes printed the sky-high market prices of wheat and oats, but not a single word on

Why putting suspicion on someone who never took the Tambora ideas very seriously?

conclusion about what? – no facts only imagination!

export bans for corn were decreed to stop border crossing speculation and to protect the store inside the country

to replace 'corn export ban' for 'corn shortage' is a falsification

the famine. Even in the period booklet⁵ by JCS Bauer on the draisine its author does not breathe a word of the simultaneous hunger catastrophe. This can be explained by the ever-present censorship subjecting all printed media in the German duchies. Apparently authorities wanted to avoid spreading the news of looting and burning down of bakeries and mills by the hungry ones. And being a civil servant of the Badenian court the inventor obeyed, of course. Even the above quotation is an indication of this: The grand-ducal commission prefers to relate to the administrative act 'Getreidesperre' (corn export ban) to avoid the word famine. But it is incomprehensible how such an administrative act could disrupt 'usual and natural transport links', ie destroy roads or carriages (Jost prefers to translate 'Verkehrsverbindungen' instead as 'trade links'!) So I felt free to translate 'Getreidesperre' as 'corn shortage'. Obviously there were no draught horses at hand any more.

Figure 2. *THE BONESHAKER* #198/p. 7/8 with the confessions by Hans-Erhard Lessing about his errors. Annotations by Jost Pietsch.

is not possible because so many horses have been slaughtered because of the scarcity of fodder." This section of the article is more accurately translated, "There have occurred everywhere corn export bans so that the usual and natural trading links are totally disrupted, and it is not expected that a regular circulation of the extant corn will develop inside [!] the interior of the country." The underlined assertion was smuggled under the quotation marks although it the words did not appear in the newspaper. Such a fake quotation is a mortal sin in science!

Completely horses' death without evidence

After being informed by me, the author has confessed it as "a rather foolishly incorrect quotation"³ and has called it a fake in a handwritten postcard [Figure 3]. He tried to explain it as a kind of innocent fake caused by a slipped aside quotation mark at the end. Then, he declared that he originally intended his statement about slaughtered horses as naked assertion outside the shelter of the quotation mark⁴. Yet this does not make sense. It is not

⁴ idib. p.7.

plausible that such a conclusion could be reached without any confirmation of the situation of the horses. However, there exists a third version of this conclusion in his book *AUTOMOBILITÄT*⁵:

"When the corn had reached the Mannheim harbour it usually was carried on by horse transport." Then he confused 'trading links' with 'transport links' and went on, "If these transport links were disrupted it only could mean – that there did not exist any horses any more. Sole thinkable

⁵ Hans-Erhard Lessing, *Automobilität*, 2003, p. 138.

consequence: They were starved to death because of a deficiency of fodder or they had been slaughtered in an act of emergency and were eaten up.”

This is really amateurish guess-work, merely a figment of imagination, far below the threshold of validation required of scientific standards – this was inspired only by his big error, the misinterpreted alleged totally disrupted transport links! In survey. we have three versions about the alleged great horse-die-off in Mannheim:

- 1). The fake quotation,
- 2). The naked assertion without evidence,
- 3). The amateurish guess-work.

This shows the author had nothing in hand to support his hypothesis about a great horse-die-off. The whole story was constructed to support a need for a horseless transport solution. Thus offering the chance to present Karl von Drais as rescuer astride his running machine.

And finally we have the central confession by Lessing⁶: “The most dramatic [quotation] that I used decades ago can’t be used any longer because of a realization that its meaning is ambiguous since it may mean either ‘completely disrupted transport relations’ or ‘completely disrupted business relations.’” With this he confirmed my critique from the very beginning!⁷ The whole truth is, in 1817 there was no ambiguous meaning because then the only meaning was ‘trade relations.’

Anyway, with his confession the author has dismantled the key-stone of his hypothesis.



Figure 3. A Postcard from Hans-Erhard Lessing in which he tried to explain that his fake-quotation – originally in Cycle History 11, p. 32/33 – should have been an innocent one because of a slipped aside quotation mark. This was one of four explanations, including aspersions cast against the editor of Cycle History 11.

Then he continued: “However, this doesn’t invalidate the other proofs[??] already presented in my biography of 2003 (and as was reviewed in 2005”). The latter is an interview by Mick Hamer in THE NEW SCIENTIST⁸, which, unfortunately, contains no proof. Instead, there only is a self-reference as Lessing says: “The evidence linking Drais’s invention to Tambora’s eruption is only circumstantial but it is persuasive.” Persuasive for whom or in which way is not explained. In case of the said biography of 2003 he refers to his book AUTOMOBILITÄT⁹ without a reference page, so that the reader may look through 527 pages and find little. If page 138 was being singled out, the reader will not find any proof

but only the amateurish guess-work mentioned above.

Furthermore as support for the Tambora Hypothesis, commentaries are mentioned about the hope the running machine may “abolish the luxury of horses and to lower the price of oats and hay”¹⁰. But commentaries are not facts, and cannot explain what led to the invention of the running machine.

In a broadcast-interview¹¹ with Lessing, I declared: “As plausible as it may seem, we are not quite sure that the invention of the two-wheeler-principle by Drais was a direct consequence of the year without a summer in 1816.” And Lessing confessed, “You just cannot quite prove it.” That is the problem with all his Tambora-assertions.

6 Cycle History 28, 2017 p. 11.

7 Cycle History 28, 2017 p. 13, see endnote 13.

8 Mick Hamer The New Scientist, 29 January 2005, Brimstone and Bicycles, p. 48.

9 Cycle History 28, 2017 p. 13, see endnote 2.

10 Cycle History 28, 2017 p. 11.

11 Deutschlandlandradio-Kultur, 17. August 2016, Das Zweirad des Freiherrn von Drais.

Between 1812 and 1816 there occurred five bad crops in most parts of Europe. The last was the worst, after the Tambora eruption of 1815. Yet the upper Rhine-valley was less afflicted with it. Each year at the beginning and of the series of bad crops, Karl von Drais presented an invention for review. In 1813 it was his four-wheeled, human powered carriage called a driving machine. In 1817 it was his two-wheeler called a running machine. Lessing supposed that the higher prices for fodder had an impact on the ideas for the new travel machines¹². A critique about this matter by Andrew Ritchie, English historian and author of the standard book 'King of the Road', is to be seen in his e-mail in [Figure 4].

A bogus coin & self-promotion

After so many doubts and confessions, it is not comprehensible how the originator of the Tambora Hypothesis could have continued to promote his volcano-ideas to the point where they are represented on the German 20-Euro-coin minted in 2017 to commemorate the 200th jubilee of the invention of the running machine. Lessing was adviser to the commission and member of the jury that decided the design [Figure 5].

The rules of Wikipedia do not accept self-promotion. So, it was good luck for Lessing to have a helper named Legendre, who made corrections supporting Lessing's view, eliminating critiques of the Tambora Hypothesis or altered statements to be

¹² Tony Hadland & Hans-Erhard Lessing Bicycle Design, 2014, p. 8–10.

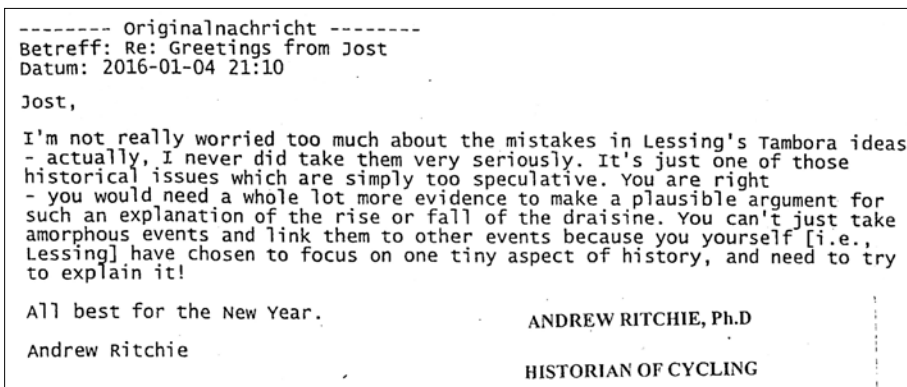


Figure 4. E-mail from Andrew Ritchie criticizing Lessing's Tambora ideas.



Figure 5. The German national 20-Euro-coin to commemorate the 200th anniversary of the invention of the running machine in 2017 – inspired by Lessing, who was member of the coin commission. In the background of the hobby-horse-rider the smoking volcano Tambora!

contrary to their initial intent. As it turned out, however, Lessing and Legendre were one and the same person, Legendre was a pseudonym [Figure 6].

The idea of Wikipedia is that it should be self regulating and that participants should control the rules. However, it needs to have sympathizers in the right places to make sure that this control is not abused.

Nevertheless, the Tambora legend is as seductive as it is contested. It is a hypothesis of faith for those who believe in miracles. And, it is worthwhile to research for those who want to know the facts.

A Hollywood principle says: If you have a true story and its legend, just take the latter as it is more fascinating. Amazingly some newspapers and media have adopted this principle. In the June/July 2020 Print Edition newsletter, titled '1843, stories of an amazing world' of the US newspaper, The Economist, [Figure 7] one read: "Why global crises are the mother of invention. In 1815 a volcanic eruption [Tambora!] wrecked havoc around the world. But it led to the birth of the bicycle... What innovations might the coronavirus

outbreak of 2020 spawn?”¹³ Here, we can see what the reckless Tambora Hypothesis has already spawned! The SÜDDEUTSCHE ZEITUNG in Munich in the edition of 13/14 October, 2018, presented the running machine together with Frankenstein [Figure 8] as “side-effects of a volcano-eruption in the year 1815”.

Actually, the novel ‘Frankenstein’ by Mary Shelly really was influenced by the Tambora eruption; the year following, its ash-clouds caused extremely bad weather in the northern hemisphere. Shelly rested with some literary friends at Lake Geneva in Switzerland. Heavy rain forced them to stay indoors and they decided to write horror-stories¹⁴. (Another story was ‘The Vampyre’ by John William Polidori, which later became the pattern for ‘Dracula’ by Bram Stoker).

The invention of the running machine still was not in sight. The weather- and road-conditions were not yet favourable for such an idea! But the frost during winter 1816/17 stabilized the ground and flooded meadows and acres were converted into ice-areas. We know that Karl von Drais enjoyed skating. By forming these ice areas, nature could have provided Drais his ‘Eureka!’ moment.

His insight was to transfer skating to overland travelling; finding that gliding on ice could be imitated by means of an apparatus rolling on wheels over solid ground. It turned out that

¹³ The Economist/magazine 1843, June 2020, title.

¹⁴ Süddeutsche Zeitung, 13./14. Oktober 2018, p. 35, Frankenstein im Dauerregen.

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„Karl von Drais“ – Versionsunterschied

[ungesichtete Version]	[gesichtete Version]
<p>Version vom 2. Oktober 2020, 04:39 Uhr (Bearbeiten) 2003:c8:bf2c:cb07:f0f0:3b2c:2668:ac09 (Diskussion) (Grammatik) (Markierungen: Visuelle Bearbeitung, Mobile Bearbeitung, Mobile Web-Bearbeitung) ← Zum vorherigen Versionsunterschied</p>	<p>Version vom 2. Oktober 2020, 16:03 Uhr (Bearbeiten) (rückgängig) Legendre (Diskussion Beiträge) (Richtigstellungen laut Lessing) Zum nächsten Versionsunterschied →</p>
<p>[[Pferde]]. Drais sah seine Erfindung als Mittel an, die fehlenden Pferde als Transportmittel zu ersetzen. Der von Lessing angenommene Zusammenhang zwischen dem Tambora-Ausbruch und der Erfindung von Drais gilt als nicht bewiesen. Vgl.: Christian Wüst: "Schleier drüber. Ein Physiker verbreitet die These, ein Vulkanausbruch habe die Erfindung des Fahrrads beflügelt. Historiker glaubten ihm – wohl zu Unrecht." In: [[Der Spiegel]] 10/2017 vom 4. März 2017, S. 98. Vgl. [http://fahrrad-history.de/'Der große Tambora-Schwindel'] Webseite von Jost Pietsch.</ref></p>	<p>[[Pferde]]. Drais sah seine Erfindung als Mittel an, die fehlenden Pferde als Transportmittel zu ersetzen. Der von Lessing angenommene Zusammenhang zwischen dem Tambora-Ausbruch und der Erfindung von Drais gilt als nicht <u>durch gedruckte Quellen</u> bewiesen <u>- es herrschte allerdings verschärfte Zensur!</u> Vgl.: Christian Wüst: "Schleier drüber. Ein Physiker verbreitet die These, ein Vulkanausbruch habe die Erfindung des Fahrrads beflügelt. Historiker glaubten ihm – wohl zu Unrecht." In: [[Der Spiegel]] 10/2017 vom 4. März 2017, S. 98. Vgl. [http://fahrrad-history.de/'Der große Tambora-Schwindel'] Webseite von Jost Pietsch.</ref></p>

Figure 6. Wikipedia’s protocol with an entry by Legendre “correction according to Lessing”. It turned out that Legendre and Lessing were one and the same person. Left column: “Lessing’s supposed connection between the eruption of Tambora and the invention of Drais is considered as not proved.” In the right column Legendre/Lessing added “...is not proved by printed sources”. The truth is it was not proved in any way!

a slender frame on two wheels in line, where the one in front could be steered, with a seat in between would work best to enable the rider to provide propulsion, using skate-like motions. It offers the comfort of sitting while kick-stepping the machine, which gives an additional benefit by unburdening the legs from the weight of the body, so that their whole force may be used exclusively for movement¹⁵.

And, best of all, was the discovery of balancing, which had been inconceivable! It was just the result of testing the steering on an experimental model. In this

¹⁵ Jost Pietsch The Boneshaker #210, summer 2019, p. 15, The Principle of the Two-wheeler.

way, assertions that the running machine should have been invented to replace horse transport are shortsighted. It is a fault to judge such a technical venture of the past with our knowledge of its later development.

Conclusion

The running machine was not a volcano-born invention, as the Tambora-two-wheeler-hypothesis was only the eruption of a fantasy based on a big literary error! We can trust in the explanation of the inventor Karl von Drais himself, “The main idea of the invention is taken from skating and consists in the simple thought to straddle and kick-step a seat on wheels with the feet along the ground.



Figure 7. ‘The Economist-magazine 1843’ parroted the Tambora Hypothesis in June 2020: “Why global crises are the mother of invention. In 1815 a volcanic eruption wreaked havoc around the world. But it led to the invention of the bicycle.”

Especially the existing completion consists in a riding seat on only two wheels inline of two feet in diameter”¹⁶ [Figure 9].

16 Badwochenblatt, (Baden-)Baden, 29 Juli 1817, p. 189.

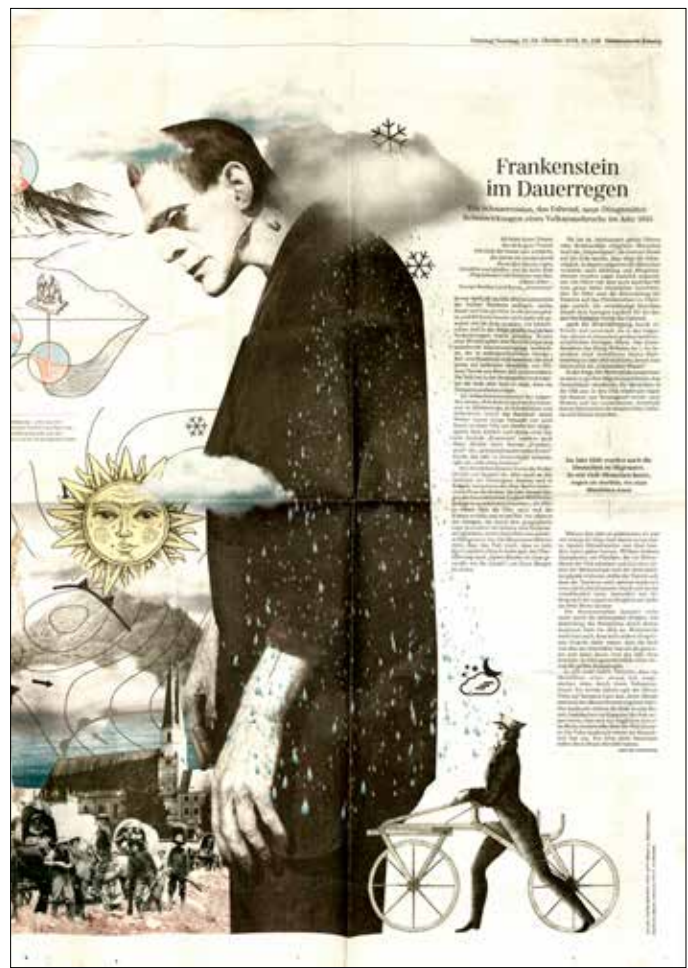


Figure 8. The German newspaper Süddeutsche Zeitung parroted as well the Tambora Hypothesis: The running machine and Frankenstein as “side-effect of a volcano-eruption in the year 1815”.

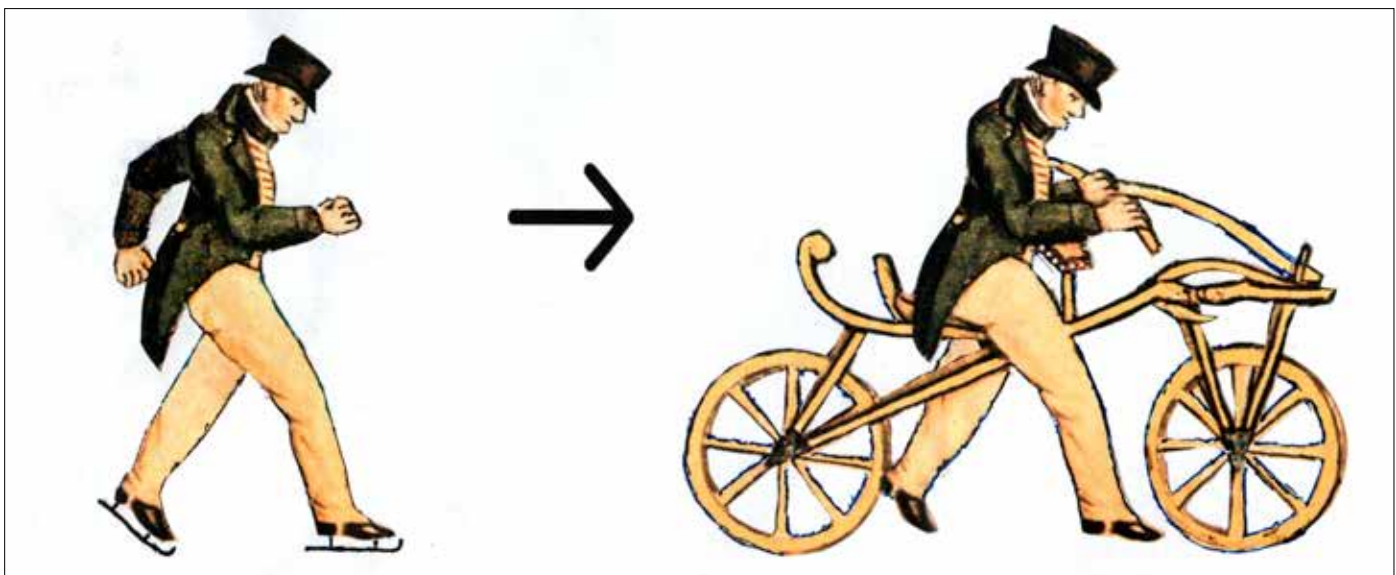


Figure 9. This collage is nothing else but the visualisation of Karl von Drais’ brain wave leading from skating to his invention of the running machine.