5.

Barták's High-Wheel Bicycle

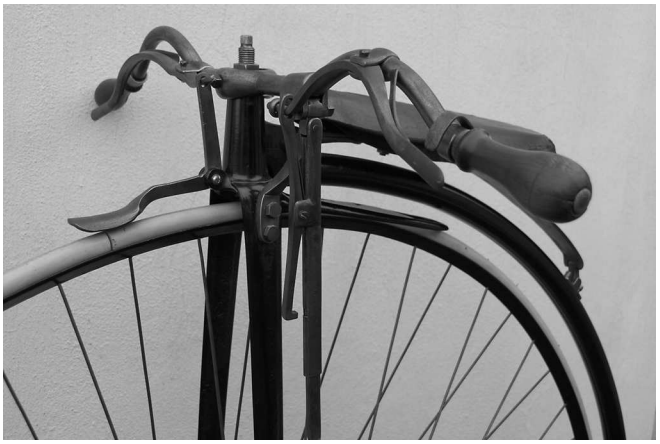
Jan Králik

Twelve years ago, I decided to write to all museums in the Czech Republic to ask whether they had in their collections any historical bicycles. It was six months before I received an answer from all of them. In the end I counted. Let us put aside private collections and the collection of the National Technical Museum.

We have in the Czech Republic 80 museums that exhibit or have in their storerooms some historical bicycles. These are municipal, provincial, and regional museums—rarely with a specialization. The answers indicate that they have a total of 3 hobby horses, 29 boneshakers, 9 tricycles, 106 high wheels (20 of those made by Kohout), and 14 safeties, which makes altogether 171 exhibits. I was proud to have a complete overview of the number of historical cycles in my country. Of course I was wrong, and of course I still had no complete overview, and I still have none today. Well, I was soon to make sure of this.

I was riding through a small town with what will be for you an unpronounceable name—Netvorice. It was hot and in the square I saw an open pub, so I gave in to temptation, propped the bike against the wall, and ordered a pint. And as I was downing it, I heard the locals talking about some gun that was in their museum. I sat down with them and straightaway found out that there was also a piece of old junk there, a boneshaker or

Fig. 5.1. Handlebar hand-cranking detail of Barták high-wheeler.



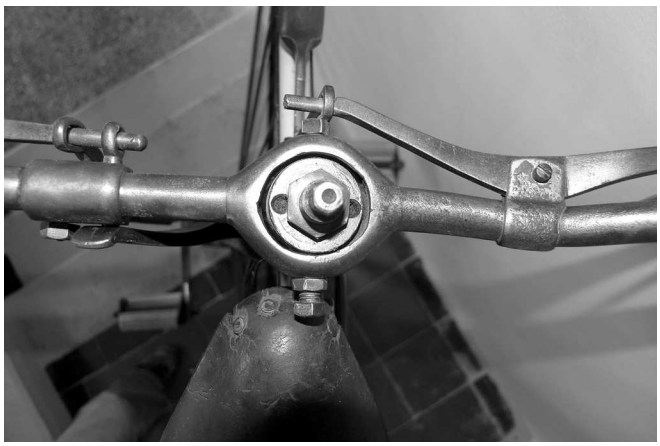
whatever. Well, I won't spin it out. In a quarter of an hour I found a lady with the key who left her cooking and went to let me in. What I saw was well worth it. I saw a 50-inch high wheel (ordinary) under the stairs. It was almost complete, without rubber tyres, unvarnished and corroded all over. Only one spoke was missing and the left pedal was damaged. The bike fascinated me at first sight with its handlebars with levers and a connecting rod fixed to the left crank. The whole mechanism enables the rider to use the strength of his arms when going uphill. How does the system function?

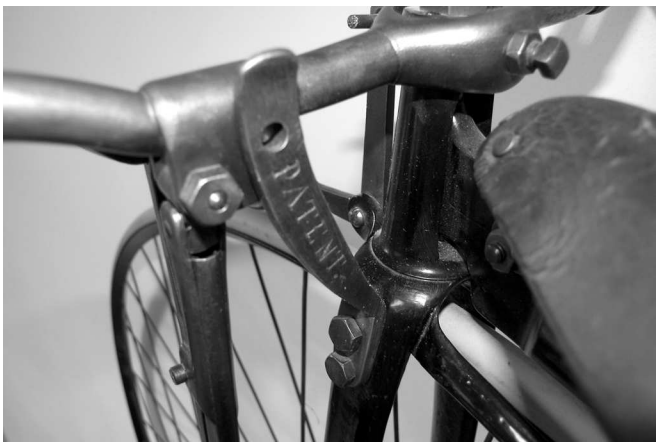
The pictures will perhaps illustrate this. The handlebars (Fig. 5.1) are fixed to a pin (Fig. 5.2). When you ride on a level surface they are locked in horizontal position. A connecting rod leads from the left handlebar and is fixed on the pin to the front wheel axle, which also holds the left crank (Fig. 5.3). When you ride with locked handlebars, the upper end of the connecting rod slides freely up and down in a bushing, which is fixed underneath the left handlebar (Fig. 5.4). When you want to "pedal" with your hands, you operate the left lever on the handlebars. This unlocks the handlebars and they can go up and down in the joint on the head. The lever simultaneously pushes into the bush a small pin, which is inserted into the connecting rod that until then moved up and down inside the bush. As soon as the pin is inserted, the connecting rod is coupled with the handlebars and is actuated the way wheels of steam locomotives are. The strength of your arms that move the handlebars up and down is transmitted by the connecting rod to the front wheel crankshaft. The lever could be fixed to a handlebar with the hook (Fig. 5.5).

When the handlebars are locked in place, they are held in horizontal position by a brace bolted to the upper end of the left side of the front fork. The word PATENT is impressed on the brace but without a patent number. The bicycle has no serial number, either.

Let's put aside just how effective the contraption was and whether it could really make the rider's life any easier. Personally I don't think much of it.

Another interesting thing is a distance counter front wheel axle. In principle it is a simple device. A fine thread is on the axle and a wheel with external teeth engages it (Fig. 5.6). This wheel turns and drives via gears two hands that indicate the





Upper left: Fig. 5.2. Handlebar fixing pin detail.

Lower left: Fig. 5.3. Detail showing connection of hand-cranking link to front wheel axle and crank.

Below: Fig. 5.4. Detail of bushing on handlebars and fixing device.

distance covered on the dial. The counter hangs under the axle. The holder on the crankshaft from which the counter is suspended doesn't let it shift to the sides in bends. The counter is mounted on the thread, so that you can move it away from or closer to the thread with a lever to make the teeth engage it.

Who manufactured this bicycle? Eyewitnesses confirmed that the bicycle was loaned or donated to the museum in the 1960s by the family of Mr. Jan Barták from the nearby village of Neveklov.

Who was Jan Barták?

During the nineteenth century many Czechs started their craftsmanship career as apprentices in Austria, very often in Vienna. The Czech lands were part of the Austro–Hungarian Empire, and it was very common for young people to live in a different society, learn different manners and speak the German language.

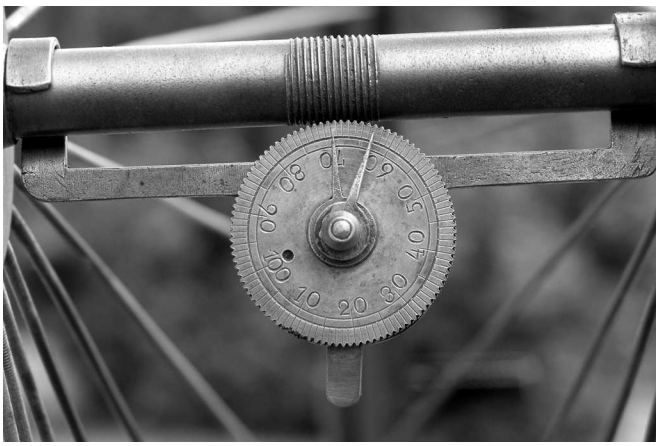
The best proof of their newly acquired skills was their own product. Mr. Jan Barták was one of these successful young men. As a mechanic, he had built this high wheel bicycle by himself and drove it from Vienna to his home village of Neveklov, sometime in the mid-1880s. For years and years it had remained under the roof of his loft. Then, in the 1960s, the bicycle was donated to the village museum in Netvorice, not far from Neveklov.

We can only speculate when exactly the bicycle was made but we won't be far from the truth if we say it was no later than the second half of 1886 since it is mentioned in the weekly Tábor of 28 August 1886. In an article entitled "Artisanal and Industrial Exhibition at Tábor" it says literally, "Jan Barták, a locksmith from Neveklov, has perfected the velocipede and put it on exhibition. It is an

Above: Fig. 5.5. Handlebar-to-crank connecting strap detail.

Right: Fig. 5.7. Illustration of the Barták bike as originally built.

Below: Fig. 5.6. Detail of the odometer mechanism.

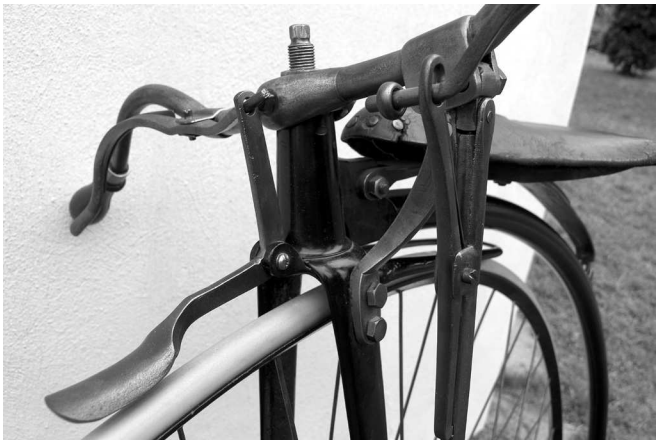


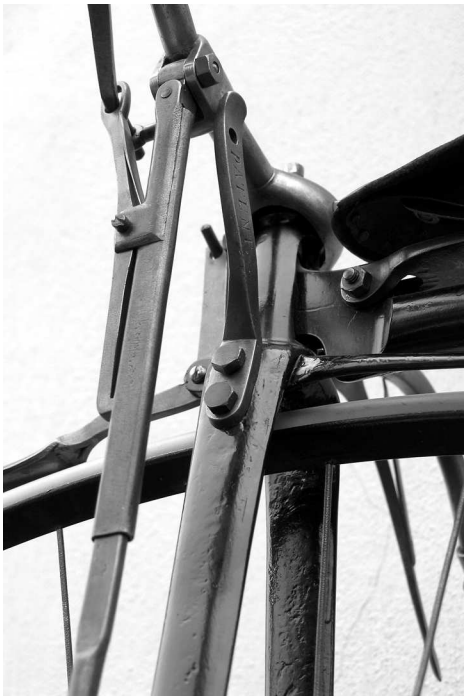
ingenious and perfect piece of work. It was awarded the silver medal at the exhibition."

I got this information from the great-grandson of Jan Barták, a man of the same name. In his loft there is to this day an interesting front wheel of a high wheel from ordinary. The great-grandfather wanted to make a high-wheel with a freewheel, which could be enabled and disabled according to the state of the terrain. All that bears witness to this are the openings in the axle flanges.

The chairman of the parish council confirmed to me that great-grandfather Barták had been a master craftsman. People came to him for water pumps from miles away. So superb was the old gentleman's craftsmanship that they worked for decades, day after day, without needing any maintenance. And in the end I got something else: A photograph of the high wheel of Mr. Jan Barták, as it looked when he had ridden it from Vienna. Unfortunately he was proud of the wheel and not of himself, and so he let the photographer immortalize his machine only—he himself isn't in any extant photograph. The picture shows the bicycle with something on the handlebars that could be the medal received by Barták at the exhibition at

Below: Fig. 5.8.
Upper right: Fig. 5.9.
and
Lower right: Fig. 5.10.
Details of the bike in its condition as found, showing details of the rod that connects the handlebars to the cranks.





Left: Fig. 5.11. and Right: Fig. 5.12. Details of the Barták bike in its restored condition.

Tábor. But this is only a guess because nothing concrete can be seen in the picture.

And here is another snippet of information to conclude: The village Netvorice decided to have Barták's bicycle cleaned, restored and conserved. Half the sum was paid by the village of Netvorice and the other by the Czech Ministry of Culture. Today we have three types of photos: One from the time the bicycle was made (Fig. 5.7), another from the mid-1990s, as it was when I found it in the museum (Figs. 5.8, 5.9, and 5.10) , and in its present state (Figs. 5.1, 5.2, 5.3, 5.5, 5.6, 5.11, and 5.12).