"Paris, December 1802. To Professor Manthey and Miss Sophie. From Munich via Strasbourg, I have now arrived in Paris and am staying at the Hôtel de la Philadelphie in the Passage de Petits-Pères."

"To improve my French, I've hired a language teacher to take tea with me every morning at eight."

Monsieur Eurstat?

Oui! Entrez!

"I did not know that respectable citizens of the city do not rise before ten."

"By that time we have already practised the language for two hours, and I am ready to write the day's letters."

Mais oui, si vous insistez.

Demain à la même heure!

"In the afternoons, I go to lectures on physics and chemistry. The experiments are presented with varying finesse."

"I have also joined the ***Athenée***, a society for scientific sociality that is also frequented by a number of ladies."

"On Shrove Sunday and the days after, Paris holds its carnival. My fellow resident Gjerlew took me along."

Colds must be danced away, Hans Christian. Put on the costume! The festivities have begun!

Don't let your mask slip!

I'm with **you!**

Hold on tight!

Venez danser avec moi, monsieur!

SOPHIE?

Mon nom est Juliette, mais vous pouvez m'appeler Sophie!

"Paris, May 1803. Dear Johann, I am now on good terms with several French scientists. But they think differently to the Germans."

These German dreamers! They think that if they propose a **BEAUTIFUL** law of nature, then it must be **TRUE**! What about the next dreamer who devises an **EVEN MORE** beautiful law? Where is the evidence?

PLING! PLING! PLING!

But when it works, it is like looking over God's shoulder!

Then arrogance will tempt you to whisper in his ear and control his hand! I, on the other hand, am merely the laboratory apprentice who takes his clockwork apart one gear at a time, until I know how it works!

PLIIIIING!

*"On 13 May, I addressed the Société Philomathique concerning your experiments with the voltaic pile. It won much applause. I also mentioned your new **charge column**."*

CLAP! CLAP! CLAP! CLAP! CLAP! CLAP!

Merci!

Formidable!

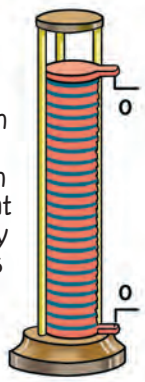
Bravo!

This new column sounds like a discovery on a par with the Leyden jar!

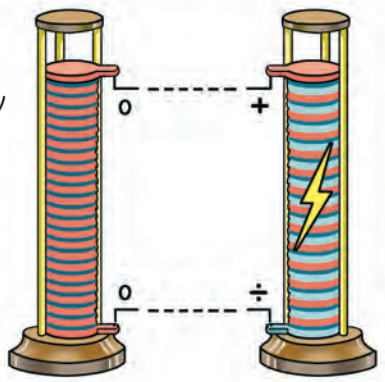
If your friend Ritter describes his **new** column in writing and demonstrates it to the prize committee, I think he could win the small Napoleonic prize of 3,000 francs.

"It was the secretary for the Napoleonic Prize who said that, so you should come to Paris soon, Johann!"

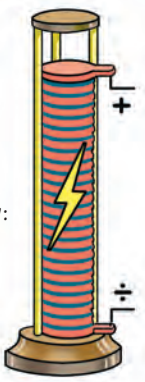
Ritter's new column was a variant of the voltaic pile from which the zinc plates had been removed, so that it consisted only of copper discs separated by acid-saturated card.



It generated no charge by itself, but if connected to a voltaic pile, it drew electricity from it.



It **retained** this electricity when the voltaic pile was withdrawn. It was thus the first rechargeable battery: an accumulator. Ørsted called it a **charge column**.



The post arrives in Oberweimar.

Mein Gott! Has Sir lost his senses?

Then perhaps Sir can pay his servant?

No, no, Frau Sauer. It's just good news from my friend!

But I speak no French, so Hans Christian must be my spokesman! He must also have a copy of the device built. We'll share the money!

Paris, instrument maker's workshop.

50 copper discs for a column – and you can pay cash?

Yes, a kind of voltaic pile, but with copper discs only – no zinc!

TOK! TOK! TOK!

You spend so much time editing and translating Ritter's notes! Why doesn't he come to Paris and show his discovery to the prize committee himself?

He's too busy and cannot speak French.

He writes so eccentrically!

Ritter is a brilliant scientist who has made great discoveries, but he can seem a little rough around the edges. I will try to present his findings objectively.

Oberweimar, June 1803. Dear Mr Ørsted, I have made a sensational discovery: If I set my charge column at a certain angle, it can fully charge itself without being connected to a voltaic pile!

This must mean that the **whole Earth** is one large battery!

We have long known that the magnetic needle in a compass points to the Earth's magnetic poles ...

... but if the Earth is like a battery, there must **also** be **ELECTRIC** poles!

These poles cannot of course be identified with a magnetic needle ...

ELECTRIC POLE

N

+

S

ELECTRIC POLE

So I made a non-magnetic, **electrically** charged needle with silver (+) at one end and zinc (-) at the other. When it turns freely, it points in a certain direction!

Towards the electric poles!

Of course!

These electric poles must affect all people, plants and animals, making them positively charged at the top and negative at the bottom!

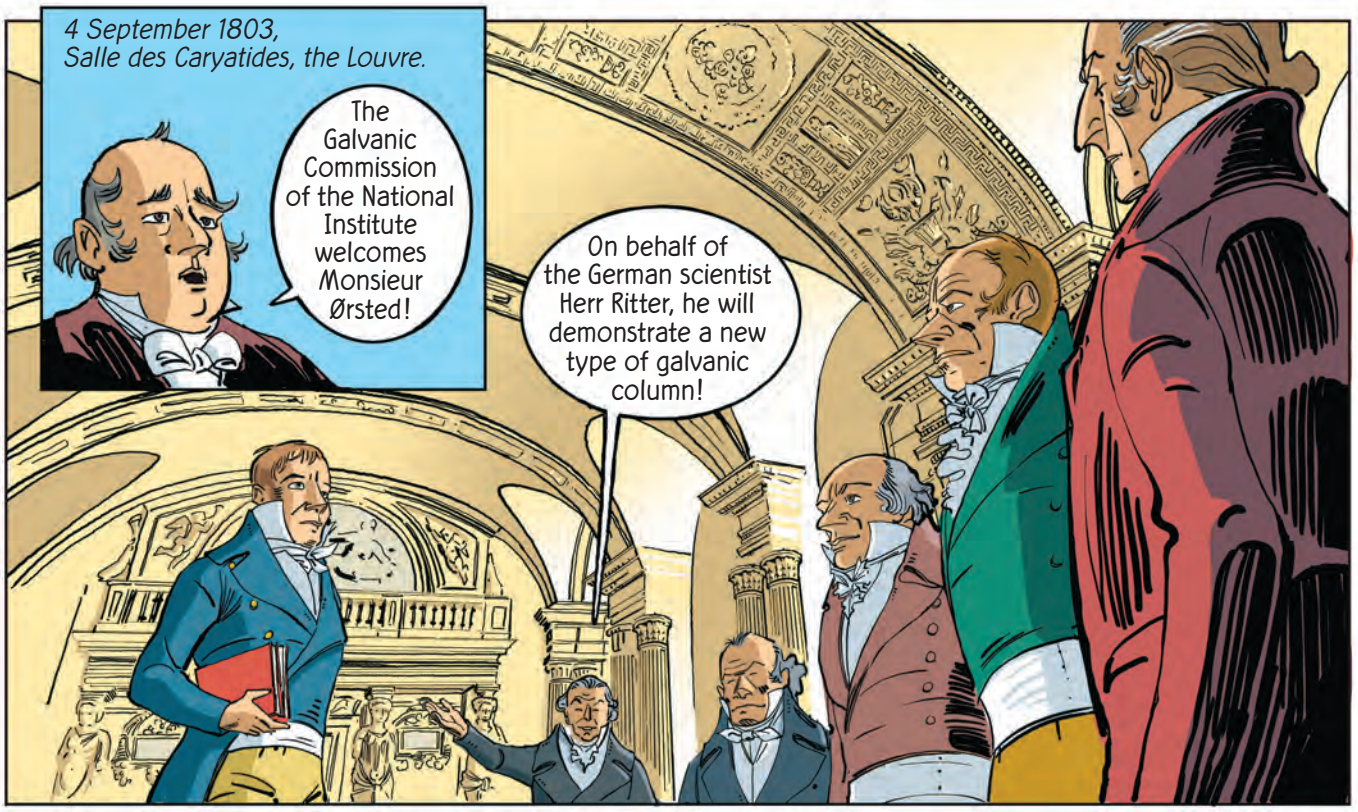
I have confirmed this finding on myself!

Paris, July 1803. Dear Mr Ritter, I have had a silver-zinc needle made by the instrument maker, but I can't reproduce the effect. Please send a precise description of the experiment so that I can repeat it for the prize committee.

Oberweimar, August 1803. Dear friend! I will send descriptions later! Promise me, however, that you will not just show the charge column, but also my discovery of the Earth's electric poles! That is what will win me the large Napoleonic prize of 60,000 francs!

"... and for God's sake **don't** let the money go via our friend Schlegel! He'll just spend it. I need it more than he does!"

PS: I have mislaid your address, so I will post this to Schlegel. Please pay him the postage. You'll get it all back when the prize money comes!



But you mentioned that your friend Ritter has made an even greater discovery ...

... that the Earth is like one large battery with galvanic poles!

We would really like to see that demonstrated!

Er... Herr Ritter has not yet sent me precise descriptions, so I have not verified it ...

But perhaps we could test his discovery together? ... In a less formal setting, of course!

Why didn't I just say that I **have** tried to follow Johann's vague descriptions!

And the silver-zinc needle pointed all over the place! This will be a fiasco!

But I **promised** Johann ... and I'm going home soon, so it's now or never!

That muddlehead! Why hasn't Johann sent me what I asked for?

But Coulomb is a skilled experimenter. Perhaps with his help it **might** work? What a triumph!

And if we work together, then my reputation won't be at risk.

But if it **fails**! Maybe I should just call it off?