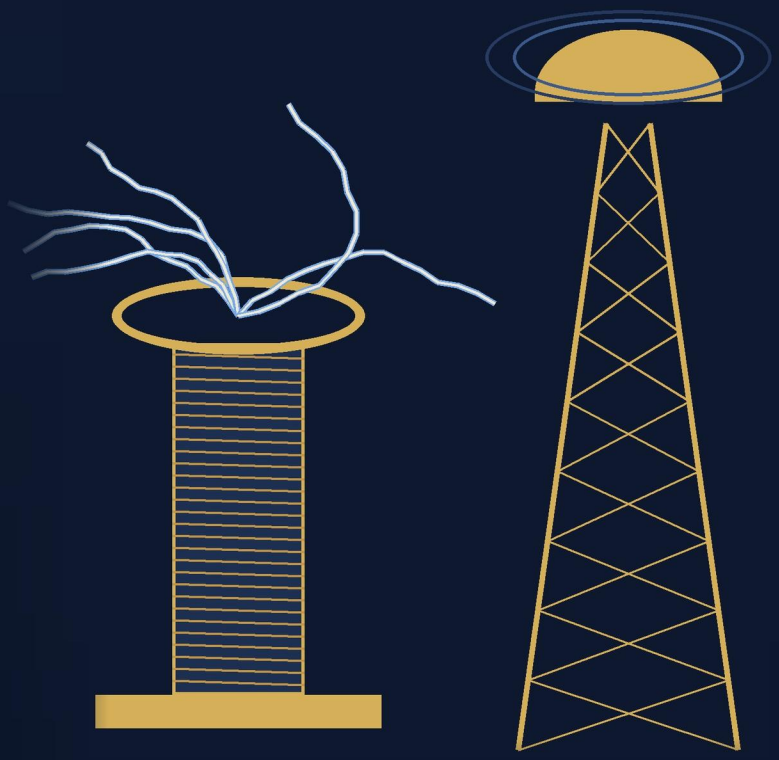
A PLAIN-ENGLISH FACT CHECK

TESLA, FACT CHECKED

What He Really Invented and What He Only Promised



THE MOTOR | THE COIL | RADIO | WARDENCLYFFE | THE LEGENDS

Checked Against Patents, Court Records and the Newspapers

ANDREW DOMINGUEZ

TRINFINITY Enterprises

TESLA, FACT CHECKED

What He Really Invented, What He Only Promised and What the Records Show

The motor, the coil, the radio fight, Colorado Springs, Wardenclyffe, the death ray, the missing papers and the legends, checked against patents, court records and the newspapers of his day

Andrew Dominguez

Fact Check Series

Trinfinity Enterprises

Tesla, Fact Checked: What He Really Invented, What He Only Promised and What the Records Show

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The information in this book stops at November 18, 2026. Every source was read on that date or earlier, and each footnote gives the date of its source.

The historical photographs in this book were published before 1931 and are in the public domain in the United States. Their sources are listed in Appendix D. The charts were made for this book from the data named under each one.

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Introduction: How to Read This Book

The information in this book stops at November 18, 2026.

Nikola Tesla is one of the most quoted and least checked people in the history of science. Search his name and you will find a man who invented almost everything: alternating current, radio, the remote control, free energy, a death ray, an earthquake machine and an electric car that ran on air. You will also find a man who was robbed by Thomas Edison, cheated by J. P. Morgan, cheated out of a Nobel Prize and erased from history by the government.

Some of that is true. A good deal of it is not. And the true parts are impressive enough that the legends are not needed.

This book started with a long write-up someone sent me about Tesla's life, his patents, his theories and his unfinished experiments. It was a thoughtful piece, and it raised the right questions, but it did not show its work. So I went back to the records: Tesla's own patents, the memoir he published in 1919, the 1943 Supreme Court radio case, the FBI's file on his papers, and the newspapers that covered him while he was alive. Where those records settle a question, I say so. Where they do not, I say that too.

The central question

What did Tesla actually invent and prove, what did he only propose or claim, and which of the famous stories about him hold up when you go back to the earliest record?

What this book covers

- **Part One** tells his life in order, from his birth in 1856 to his death in 1943 and the fight over his papers.
- **Part Two** looks at what he invented: what his 112 United States patents cover, the science behind his best work in plain words, and the long fight over who invented radio.
- **Part Three** is the fact check. It rates thirty of the most common claims about Tesla, traces the biggest legends back to where they started and checks ten of his most shared quotes. I kept the rumors in their own part so they never get mixed in with the history.
- **Part Four** looks ahead: which of Tesla's ideas are still worth research today, and which are dead ends.

At the back you will find a chronology, a table of every claim with its sources, the full source list, the credits for the pictures and a plain-English glossary of the technical words.

Another book in this series, The Next Ten: Fact Checking the Inventions Humanity Should Work On Next, looks at the inventions worth working on now, and Tesla comes up there as an early dreamer of wireless power and remote control. This book stands on its own. Where the two touch, I point it out.

Where the facts come from

Every factual sentence or table in this book traces back to a footnote. Each footnote gives the author or agency, the title, the date, a link where there is one, and the date I opened it. These are Chicago-style notes, kept short. To keep pages readable, I usually put one footnote at the end of a paragraph listing every source used in it.

I used sources in this order of preference:

Tier	What it includes	Examples
1. Primary records	Records made at the time, or by Tesla himself	His patents, his 1919 memoir, the 1943 Supreme Court opinion, the FBI file, newspapers from 1895 to 1935
2. Museums and archives	Institutions that hold the records	Nikola Tesla Museum in Belgrade, IEEE History Center, American Physical Society, PBS history site
3. Scholarly	Peer-reviewed or university research	Physics Today, the journal Atmosphere
4. Journalism and reference	Reporting that shows its sources, and edited encyclopedias	History.com, Smithsonian Magazine, MuckRock, Cosmos, Britannica
5. Reference works	Encyclopedias, used only for dates they cite to period sources	Wikipedia

A few rules I held to:

- **Tesla's own words are evidence of what he said, not proof that it happened.** His memoir is a primary source for his memories and his claims. It is not an independent check on them.
- **A patent proves an idea was filed and granted, not that a working machine existed.** The Patent Office did not test most inventions.
- **A story repeated in ten books is still one story** if all ten copied the same original. I traced the big legends back to the earliest record I could find.
- **Newspapers of the time are good evidence of what was announced and when.** They are weak evidence that an announced invention worked.

How the verdicts work

Each claim in Part Three gets one of four verdicts:

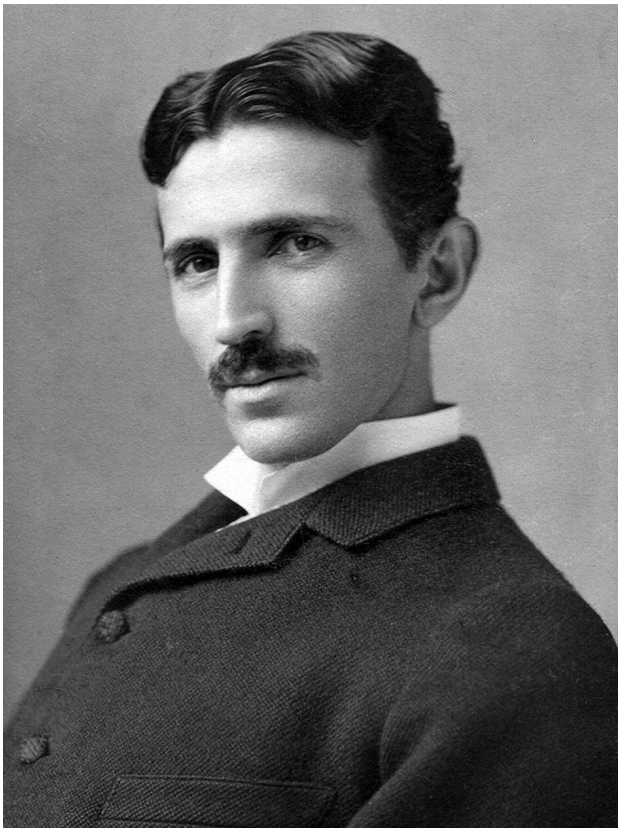
Verdict	What it means
True	The records support the claim as stated.
Partly true	Part of the claim holds up, but it leaves out something important or stretches the facts.
False	The records contradict the claim.
Inconclusive	The records are missing or too thin to decide either way.

When a statement could not be checked against a source I could open, it carries the tag **[Not verified]**.

What this book does not do

I am not an electrical engineer, and this is not a physics textbook. Where I explain the science, I keep it to what a curious reader needs to judge a claim, and I point to the source. I did not have the 1978 printed edition of Tesla's Colorado Springs notebooks in hand, so where I describe what those notes contain, I rely on the museum and other sources and say so. And I did not set out to make Tesla look good or bad. He was a brilliant inventor who also made promises he could not keep. Both things are in the record.

Part One: The Life



Nikola Tesla at about age 34, photographed by Napoleon Sarony around 1890. Public domain.

Chapter 1: A Boy From Smiljan, 1856 to 1884

Nikola Tesla was born in July 1856 in the village of Smiljan, then part of the Austrian Empire and today in Croatia. Most sources give the date as July 10; Britannica lists it as "July 9/10" because he was said to be born around midnight. His father was a priest of the Serbian Orthodox Church. The birthday is easy to confirm from the newspapers: in 1934 and again in 1935, Tesla held press events "on the occasion of his birthday," and the papers counted him as 78 and then 79 years old.[1]

Most of what we know about his childhood comes from Tesla himself, in a six-part memoir called "My Inventions" that he wrote for the Electrical Experimenter magazine in 1919, when he was 63. It is a lively read. It is also the memory of an older man telling his own story, so I treat it as his account, not as an independent record.[2]

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[1] Encyclopaedia Britannica, "Nikola Tesla", undated web page. https://www.britannica.com/biography/Nikola-Tesla. Accessed November 18, 2026; APS News (American Physical Society), "This Month in Physics History: Nikola Tesla", May 2003. https://aps.org/publications/apsnews/200305/history.cfm. Accessed November 18, 2026; Associated Press, in the Evening Star (Washington, D.C.), "Tesla Claims New Death Ray Can Make Nation Impregnable", July 11, 1934. Library of Congress, Chronicling America, page sequence 11. https://www.loc.gov/resource/sn83045462/1934-07-11/ed-1/?sp=11. Accessed November 18, 2026; United Press, in the Waterbury Democrat (Waterbury, Connecticut), "Nikola Tesla Reveals Many Discoveries On Birthday", July 11, 1935, page 8. Library of Congress, Chronicling America. https://www.loc.gov/resource/sn82014085/1935-07-11/ed-1/?sp=8. Accessed November 18, 2026.

By his own telling, Tesla studied engineering at the polytechnic school in Graz, Austria, where he became fixed on a problem his teacher said could not be solved: how to run a motor on alternating current without the sparking brushes and commutator that direct-current machines needed. In 1880 he went to Prague, "carrying out my father's wish to complete my education at the University there." He did not finish a degree. In 1881 he took work on a new telephone system in Budapest, Hungary.[3]

The walk in the park

Tesla's most famous story is about Budapest. He wrote that while walking in the City Park at sunset with a friend, reciting Goethe's "Faust," the answer to the motor problem "came like a flash of lightning." He drew diagrams in the sand with a stick, and he said they were the same diagrams he showed "six years later" in his 1888 lecture to the American Institute of Electrical Engineers. That puts the walk in 1882.[4]

Nobody else wrote down that walk at the time. The friend who was there did not leave a record I could find. So the honest way to put it is this: Tesla said he had the idea of the rotating magnetic field in 1882, and his patents show he had it worked out in detail by 1887. The patents are the proof. The park story is his memory.

Paris and the trip to America

In 1882 Tesla took a job in Paris with a company that installed Thomas Edison's lighting system. Its factory at Ivry was run by Charles Batchelor, whom Tesla called "an intimate friend and assistant of Edison." Tesla was sent to Strassburg, in Alsace, to fix a troubled lighting plant. He wrote that a company administrator had promised him "a liberal compensation" if he succeeded, but when he came back in the spring of 1884, each of three managers said one of the others had the power to pay him. He called the promised reward "a castle in Spain." That spring Batchelor urged him to go to America to redesign the Edison machines. Tesla sailed for New York in 1884.[5]

The museum in Belgrade and the Tesla Science Foundation disagree on small details of these years, including the exact arrival date in New York. I use 1884, which is the year Tesla himself gives.[6]

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[2] Nikola Tesla, "My Inventions (six parts: I. My Early Life; II. My First Efforts at Invention; III. My Later Endeavors; IV. The Discovery of the Tesla Coil and Transformer; V. The Magnifying Transmitter; VI. The Art of Telautomatics)", Electrical Experimenter, February to October 1919. Text read in the TFC Books reprint hosted on Wikimedia Commons as File:My_inventions.pdf. https://commons.wikimedia.org/wiki/File:My_inventions.pdf. Accessed November 18, 2026.

[3] Nikola Tesla, "My Inventions.".

[4] Nikola Tesla, "My Inventions.".

[5] Nikola Tesla, "My Inventions.".

[6] Nikola Tesla, "My Inventions."; Tesla Science Foundation, "Patents", undated web page. https://teslasciencefoundation.org/patents/. Accessed November 18, 2026.

Chapter 2: New York, Edison and the Fifty Thousand Dollars, 1884 to 1887

Tesla worked for Edison's company in New York for less than a year. His own account of meeting Edison is warm. He called Edison "this wonderful man" and told how he won Edison's trust by repairing the dynamos on the steamship Oregon overnight. He worked, he said, from 10:30 in the morning until 5 the next morning, and designed "twenty-four different types of standard machines."[7]

The famous broken promise

Then comes the story almost every Tesla article repeats: Edison promised Tesla $50,000 to improve his dynamos, then refused to pay, saying, "Tesla, you don't understand our American humor."

Here is what Tesla himself wrote in 1919, word for word:

> "The Manager had promised me fifty thousand dollars on the completion of this task but it turned out to be a practical joke. This gave me a painful shock and I resigned my position."[8]

Look closely. In Tesla's own account, it was "the Manager" who made the promise, not Edison. Tesla does not put the "American humor" line in Edison's mouth anywhere in the memoir. The version where Edison himself makes the promise and the joke appears in later retellings. I could not trace the exact first appearance of that version, so I mark it **[Not verified]**: I cannot tell you who first changed "the Manager" to "Edison."

So the claim "Edison cheated Tesla out of $50,000" is at best **Partly true**. Tesla did say someone at Edison's company promised him $50,000 and did not pay. That someone, by Tesla's own words, was the manager. And no pay record, contract or letter from 1885 has turned up to confirm the amount.

Tesla's own company

After he left Edison, Tesla wrote, "some people approached me with the proposal of forming an arc light company under my name." His backers wanted arc lamps, not his motor. "No, we want the arc lamp," he quoted them. "We don't care for this alternating current of yours." He perfected an arc-lighting system in 1886.[9]

The patent record matches. Tesla's first United States patent, number 334,823, was a commutator for dynamo machines, granted January 26, 1886. His first six patents, all from 1886, are arc lamps, dynamo regulators and a commutator. None of them is the motor.[10]

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[7] Nikola Tesla, "My Inventions.".

[8] Nikola Tesla, "My Inventions.".

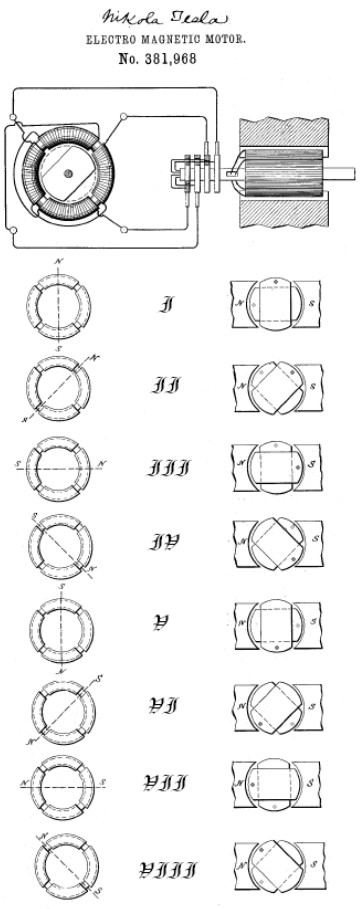
[9] Nikola Tesla, "My Inventions.".

[10] Nikola Tesla Museum, Belgrade, "List of Nikola Tesla's patents (English)", May 2023 upload. https://tesla-museum.org/wp-content/uploads/2023/05/lista_patenata_eng.pdf. Accessed November 18, 2026; Tesla Science Foundation, "Patents.".

Chapter 3: The Motor That Changed Everything, 1887 to 1893

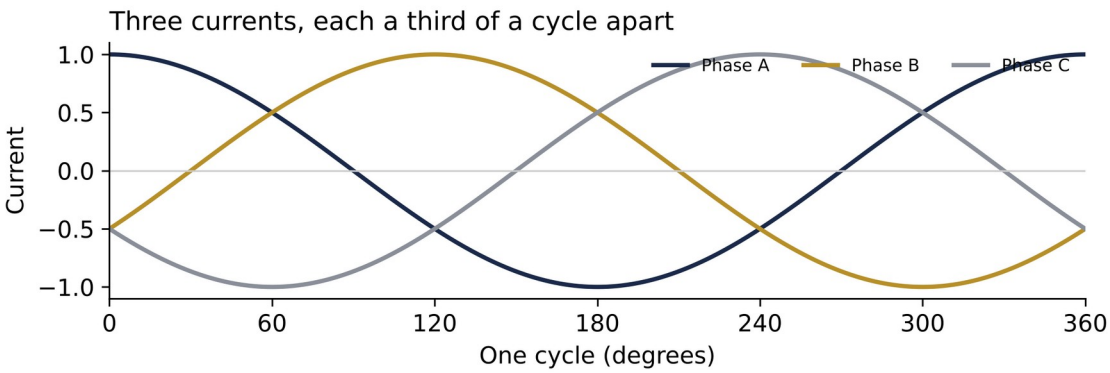
On October 12, 1887, Tesla filed the application that became United States Patent 381,968, "Electro-Magnetic Motor." It was granted on May 1, 1888, the same day as six more of his patents on motors and power transmission, including number 382,280, "Electrical Transmission of Power." Together they described a whole system: generators that put out two or more alternating currents out of step with each other, wires to carry them, and motors that used them to make a magnetic field that turns.[11]

That turning field is the heart of Tesla's fame. Chapter 8 explains it in plain words. For now, the key point is this: a motor built this way needs no brushes and no commutator rubbing on the spinning part. It is simple, rugged and cheap. The same idea runs most of the industrial motors in the world today.



The first drawing sheet of Patent 381,968, "Electro-Magnetic Motor," granted May 1, 1888. The eight small pairs of figures show the magnetic field stepping around the motor as the currents change. Public domain.

[11] Nikola Tesla, "Electro-Magnetic Motor, U.S. Patent 381,968", filed October 12, 1887, granted May 1, 1888. https://patents.google.com/patent/US381968A/en. Accessed November 18, 2026; Nikola Tesla Museum, "List of Nikola Tesla's patents.".



Drawn from the standard equations for a balanced three-phase supply. Fed to coils spaced around a motor, they make a magnetic field that turns.

Tesla's 1888 diagrams in plain form: three alternating currents, each a third of a cycle behind the last. Fed into coils spaced around a motor, they make a magnetic field that turns. Chart made for this book.

In 1888 Tesla lectured to the American Institute of Electrical Engineers. This is the address he later said showed the diagrams from the Budapest park.[12]

Was Tesla first?

Not alone. In Turin, Italy, a physics professor named Galileo Ferraris had been studying rotating magnetic fields since 1885. In March 1888 he read a paper on the subject to the Royal Academy of Sciences in Turin, titled "Rotazioni elettrodinamiche prodotte per mezzo di correnti alternate" (electrodynamic rotations produced by alternating currents). Ferraris never patented his work. Engineers writing in the 1890s described the two men as reaching the same idea independently and at nearly the same time. In 2021 the IEEE named "Rotating Fields and Early Induction Motors, 1885-1888" a milestone, crediting the work in Turin.[13]

Tesla's lasting claim rests on something Ferraris did not do: he filed detailed patents for a complete working system and got them granted in 1888. Ferraris published the physics. Tesla patented the machines. Other engineers, including Mikhail Dolivo-Dobrovolsky in Germany, went on to develop the three-phase systems that became the world standard. **[Not verified]**: I did not reach a source I could open on Dolivo-Dobrovolsky's work, so I mention him only by name.

Westinghouse

George Westinghouse, the Pittsburgh industrialist who was already building alternating-current lighting systems, acquired the rights to Tesla's polyphase patents in 1888. Britannica says he "bought the patent rights" in May 1888; an open university textbook says the agreement was signed in July 1888 "in exchange for shares of stock and royalty payments." The same textbook says Tesla later "tore up what could have been a lucrative royalty contract" with Westinghouse. Tesla's own 1919 memoir says only that "in the early part of 1888 an arrangement was made with the Westinghouse Company for the manufacture of the motors on a large scale," and that Westinghouse's engineers had standardized on 133 cycles per second, so he had to adapt his motor to it. It does not tell the torn-contract story, and I

[12] Nikola Tesla, "My Inventions.".

[13] Wikipedia, "Galileo Ferraris", undated. Used for the date and title of Ferraris's 1888 paper, which the article cites. https://en.wikipedia.org/wiki/Galileo_Ferraris. Accessed November 18, 2026.

found no contract or letter I could open that proves it. **[Not verified]**: the often-quoted royalty of $2.50 per horsepower did not appear in any source I could read.[14]

What is well documented is the result. Westinghouse's company and its engineers turned the patents into working equipment. In 1893 Westinghouse won the contract to light the World's Columbian Exposition in Chicago, and Britannica says it used Tesla's alternating-current system to do it. Tesla himself demonstrated alternating current at the fair.[15]

The Edison Medal

Tesla's fellow engineers recognized this work in his lifetime. In December 1916 the American Institute of Electrical Engineers voted him its Edison Medal, "for meritorious achievements in his early original work in polyphase and high-frequency electric currents." The medal was presented in New York in May 1917. That it was named for Edison is one of the small ironies of the story.[16]

[14] Encyclopaedia Britannica, "Nikola Tesla."; Karen Garvin, "Chapter 12: Nikola Tesla, in History of Applied Science and Technology", Rebus Community open textbook, 2017. https://press.rebus.community/historyoftech/chapter/nikola-tesla/. Accessed November 18, 2026; Nikola Tesla, "My Inventions.".

[15] Encyclopaedia Britannica, "Nikola Tesla."; Karen Garvin, "Chapter 12."; APS News, "This Month in Physics History.".

[16] Frederick Finch Strong, Electrical World (reprinted by Tesla Universe), "Nikola Tesla Is Awarded the Edison Medal by A.I.E.E.", May 5, 1917, page 857. https://teslauniverse.com/nikola-tesla/articles/nikola-tesla-awarded-edison-medal-aiee. Accessed November 18, 2026.

Chapter 4: High Frequency, Fire, Niagara and the Boat, 1891 to 1898

The Tesla coil

After the motor, Tesla turned to currents that change direction very fast, thousands or millions of times a second. On June 23, 1891, he was granted Patent 454,622, "System of Electric Lighting," which claims the use of "currents of enormous frequency and excessively high potential" for making light. It is the patent most often cited for the resonant transformer now called the Tesla coil. The same year, according to Britannica, he became a United States citizen. A run of high-frequency patents followed in 1896 and 1897.[17]

On May 20, 1891, at a meeting of the American Institute of Electrical Engineers (AIEE) at Columbia College in New York, Tesla gave the lecture that made him famous: "Experiments with Alternate Currents of Very High Frequency and Their Application to Methods of Artificial Illumination." He showed glowing tubes and lamps run by high-frequency currents, and he described a lamp made of a carbon button "enclosed in an exhausted globe" that could be "rendered highly incandescent."[18]

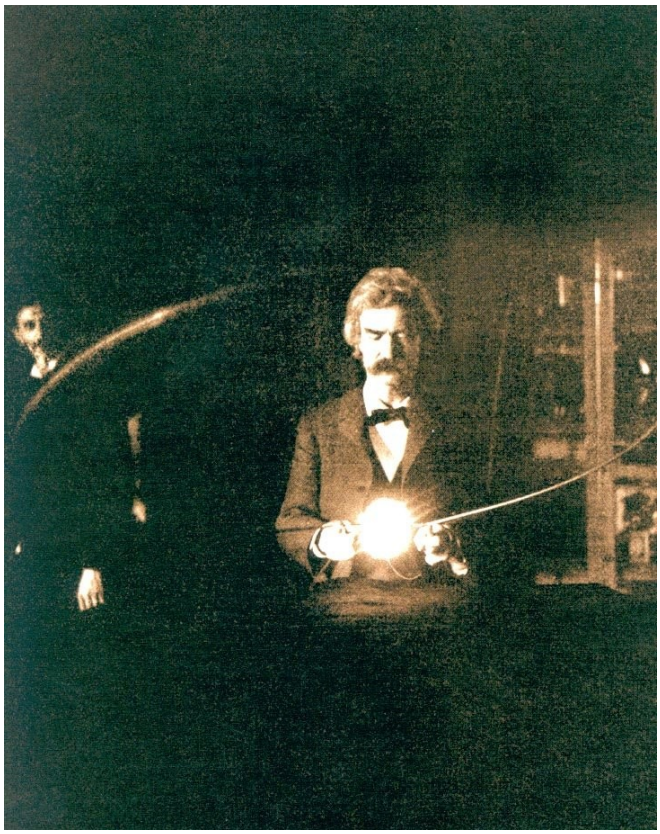
The Tesla coil makes very high voltages from a modest power supply by using resonance, the same effect that lets a child on a swing go higher with small, well-timed pushes. Tesla used it to light lamps with no wires attached and to throw long sparks. In his memoir he said that by 1898 his New York laboratory on Houston Street could reach 4,000,000 volts, with sparks of 16 feet.[19]

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[17] Nikola Tesla, "System of Electric Lighting, U.S. Patent 454,622", filed April 25, 1891, granted June 23, 1891. https://patents.google.com/patent/US454622A/en. Accessed November 18, 2026; Nikola Tesla Museum, "List of Nikola Tesla's patents."; Encyclopaedia Britannica, "Nikola Tesla.".

[18] Nikola Tesla, "Experiments with Alternate Currents of Very High Frequency and Their Application to Methods of Artificial Illumination", lecture at the AIEE meeting, Columbia College, New York, May 20, 1891. Text read on Tesla Universe. https://teslauniverse.com/nikola-tesla/lectures/experiments-alternate-currents-very-high-frequency-and-their-application. Accessed November 18, 2026.

[19] Nikola Tesla, "My Inventions.".



Mark Twain, center, holding a loop in Tesla's laboratory in the spring of 1894. Published in The Century Magazine, April 1895. Public domain.

The fire

In March 1895 Tesla's laboratory on South Fifth Avenue burned. A Maine newspaper on March 23, 1895, describing an interview done there for The Outlook, called it his "New York laboratory, burned a few days since." Years of equipment and notes were lost.[20]

Niagara Falls

The Adams power plant at Niagara Falls went into operation on August 26, 1895, using alternating current. On November 17, 1896, Niagara power was first sent to the city of Buffalo. It was a landmark in sending large amounts of power over a distance, and it ran on the polyphase system Westinghouse had licensed from Tesla.[21]

Two cautions keep the story honest. First, Niagara was a huge team effort by bankers, engineers, contractors and two big electrical companies. Second, when The New York Times covered the plant in

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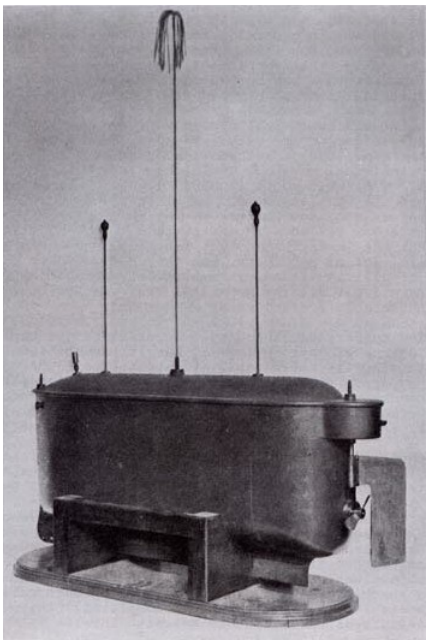
[20] Portland Daily Press (Portland, Maine), summarizing Walter T. Stephenson in The Outlook, "Tesla in His Laboratory", March 23, 1895. Library of Congress, Chronicling America, page sequence 11. https://www.loc.gov/resource/sn83016025/1895-03-23/ed-1/?sp=11. Accessed November 18, 2026.

[21] Engineering and Technology History Wiki (IEEE History Center), "Milestones: Adams Hydroelectric Generating Plant, 1895", milestone dedicated June 21, 1990. https://ethw.org/Milestones:Adams_Hydroelectric_Generating_Plant,_1895. Accessed November 18, 2026; David Bear, The Westinghouse Legacy, "Niagara Put Into Harness", undated web page. https://www.thewestinghouselegacy.org/archives/niagara-put-into-harness. Accessed November 18, 2026.

1895, it gave Tesla only "one passing mention" and did not mention Westinghouse at all. Credit was shared, and argued over, even then.[22]

The boat that obeyed from across the room

In 1898 Tesla showed a small boat that he steered and stopped from a distance with no wires. His patent, number 613,809, was filed July 1, 1898, and granted November 8, 1898, for a method of "controlling from a distance the operation of the propelling engines, the steering apparatus" of a vessel or vehicle. He called the idea "telautomatics."[23]



Tesla's radio-controlled boat, from his article "The Problem of Increasing Human Energy," The Century Magazine, June 1900. Public domain.

Tesla wrote that the patent was granted "only after the Examiner-in-Chief had come to New York and witnessed the performance, for what I claimed seemed unbelievable." He also admitted a bit of showmanship: when audiences asked the boat questions and it "answered" with signals, "it was myself who gave the replies by means of the device."[24]

This one is solid. A granted patent, a public demonstration and Tesla's own detailed account all line up. The boat was a true ancestor of remote-controlled machines, from model airplanes to drones. It did not think for itself. A person was always at the controls.

The doubters of 1898

Not everyone was impressed. By the end of 1898 Tesla was making much larger promises about wireless power and control, and parts of the technical press turned on him. A Washington newspaper in

[22] David Bear, "Niagara Put Into Harness.".

[23] Nikola Tesla, "Method of and Apparatus for Controlling Mechanism of Moving Vessels or Vehicles, U.S. Patent 613,809", filed July 1, 1898, granted November 8, 1898. https://patents.google.com/patent/US613809A/en. Accessed November 18, 2026.

[24] Nikola Tesla, "My Inventions.".

December 1898, reprinting the New York Evening Post, quoted the Scientific American as saying that Tesla was "flooding the press with rhetorical bombast that recalls the wildest days of the Keely motor mania," a reference to a famous fraud. The same article said the Electrical Engineer, which had once praised his work, now "refuses point blank" to accept one of his promises in silence.[25]

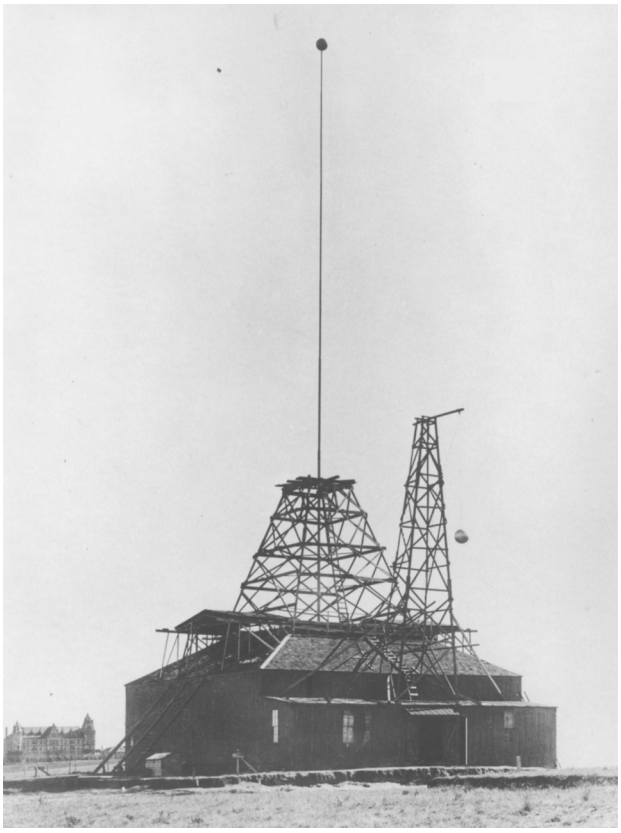
That tension between real achievement and growing promises runs through the rest of his life.

[25] The Times (Washington, D.C.), reprinting the New York Evening Post, "Electric Sensationalism: Tesla's Promises and Performances, Scientific Disbelief", December 27, 1898, page 2. Library of Congress, Chronicling America. https://www.loc.gov/resource/sn85054468/1898-12-27/ed-1/?sp=2. Accessed November 18, 2026.

Chapter 5: Colorado Springs and Wardenclyffe, 1899 to 1917

Colorado Springs

In May 1899 Tesla went to Colorado Springs, Colorado, where he built a barn-like laboratory on the open plain with a tall mast and the largest coil he had ever made. He was backed with $30,000 from John Jacob Astor, according to the PBS history site. He stayed until early January 1900. His daily notebooks, kept from June 1, 1899, to January 7, 1900, were published in 1978 by the Nikola Tesla Museum in Belgrade as "Colorado Springs Notes, 1899-1900," edited by Aleksandar Marincic and Vojin Popovic.[26]



Tesla's Colorado Springs laboratory, December 1899. Photograph by Dickenson V. Alley. Public domain.

What happened there is the most argued-over part of his career. Here is what the records support:

- He built and ran a giant resonant transmitter, which he later called the "Magnifying Transmitter," and produced sparks and discharges far beyond anything in his New York lab.[27]

[26] PBS, Tesla: Life and Legacy, "Colorado Springs", undated web page. https://www.pbs.org/tesla/ll/ll_colspr.html. Accessed November 18, 2026; Wikipedia, "Colorado Springs Notes, 1899-1900", undated. Used only for the publication details of the 1978 edition. https://en.wikipedia.org/wiki/Colorado_Springs_Notes,_1899%E2%80%931900. Accessed November 18, 2026; Nikola Tesla, "My Inventions.".

[27] Nikola Tesla, "My Inventions.".

- Photographs of the lab and its sparks were taken by Dickenson V. Alley and published in The Century Magazine in June 1900 with Tesla's article "The Problem of Increasing Human Energy."[28]
- Tesla studied lightning and what he believed were standing electrical waves in the Earth, which he called "terrestrial stationary waves."[29]

And here is what the records do not support, or support only through Tesla's own claims:

- **The 200 lamps.** The famous claim, repeated in many books and online, is that Tesla lit 200 lamps 25 or 26 miles away without wires. In his own 1919 memoir, Tesla printed a description of his "World-System" that says the Magnifying Transmitter "passed a current, sufficient to light more than two hundred incandescent lamps, around the Globe." That is a claim about a current going around the whole Earth, not a demonstration of lamps lit 25 miles away. The PBS history site says only that "there are some reports" he lit tubes "several miles" away. I found no record made at the time, by Tesla or anyone else, of 200 lamps lit 25 miles from the lab. The Wikipedia article on the station, which cites five book-length biographies, does not repeat the claim either. Chapter 12 traces this one.[30]
- **Power across the globe.** In the same "World-System" text, Tesla wrote that "careful tests and measurements" in Colorado had "demonstrated that power in any desired amount can be conveyed, clear across the Globe if necessary, with a loss not exceeding a few per cent." No one else ever measured or repeated such a result. It is Tesla's claim.[31]
- **The blacked-out power plant.** A popular story says Tesla's experiments burned out the dynamo at the El Paso Electric Company and blacked out Colorado Springs. PBS tells it without a source. Another account, citing Tesla himself in 1917, says dynamos in a power house 6 miles away were "repeatedly burned out." The two versions do not match, and I found no utility record of the event. **Inconclusive.**[32]

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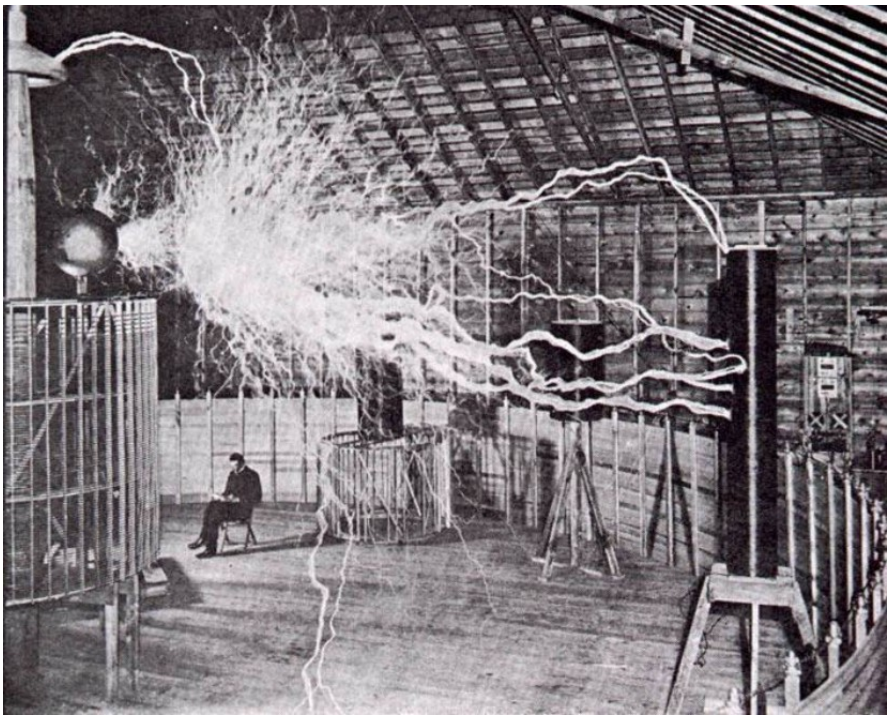
[28] Wikimedia Commons, "File records for the photographs in this book (see Appendix D)", undated. https://commons.wikimedia.org/. Accessed November 18, 2026; Nikola Tesla, "My Inventions.".

[29] Nikola Tesla, "My Inventions.".

[30] Nikola Tesla, "My Inventions."; PBS, "Colorado Springs."; Wikipedia, "Tesla Experimental Station", undated. https://en.wikipedia.org/wiki/Tesla_Experimental_Station. Accessed November 18, 2026.

[31] Nikola Tesla, "My Inventions.".

[32] PBS, "Colorado Springs."; Wikipedia, "Tesla Experimental Station.".



The most famous Tesla photograph: Tesla seated calmly while giant sparks fill the room, Colorado Springs, December 1899. It was a double exposure: the sparks and the seated man were photographed separately. Photograph by Dickenson V. Alley. Public domain.

That last picture deserves its own note. It is not a fake in the sense of a lie told later. It was a trick photograph made at the time, by exposing the same plate twice: once with the sparks running in the dark, and once with Tesla sitting in the empty room. No person could safely sit that close to the discharge. The Wikimedia Commons record for the image describes it as "trick photography." It is a great picture, and readers should know how it was made.[33]

Wardenclyffe

Back in New York, Tesla set out to build a station that would send messages, and in time power, across the Atlantic. In March 1901 J. P. Morgan agreed to put up $150,000. Tesla bought land at Shoreham on Long Island, hired the architect Stanford White, and began building a 187-foot tower in September 1901.[34]

[33] Wikimedia Commons, "File records for the photographs in this book.".

[34] Wikipedia, "Wardenclyffe Tower", undated. Used for construction and demolition dates, which the article cites to period sources. https://en.wikipedia.org/wiki/Wardenclyffe_Tower. Accessed November 18, 2026; Smithsonian Magazine, "Nikola Tesla's tower that became a million-dollar folly", undated web page. https://www.smithsonianmag.com/history/nikola-tesla-tower-that-became-million-dollar-folly-11074324/. Accessed November 18, 2026; American Physical Society, "Historic Sites: Wardenclyffe", plaque dedicated December 11, 2016. https://aps.org/funding-recognition/historic-sites/wardenclyffe. Accessed November 18, 2026.



The Wardenclyffe station, Shoreham, New York, about 1904. The tower stood behind the brick laboratory. Published in Popular Electricity, June 1911. Public domain.

The money ran out. Costs grew, Tesla's plans grew with them, and in December 1901 Guglielmo Marconi sent a radio signal across the Atlantic with far simpler equipment.[35] Smithsonian Magazine sums it up: "An appeal to Morgan for more funding proved fruitless, and in the meantime, investors were rushing to throw their money behind Marconi." The station never went into regular service.[36]

Tesla himself defended Morgan in print. In 1919 he wrote that Morgan "carried out his generous promise to the letter and it would have been most unreasonable to expect from him anything more." That is worth remembering when you read, in Chapter 12, the legend that Morgan killed the project because he could not put a meter on free power.[37]

On July 4, 1917, the Smiley Steel Company of New York began demolishing the tower with dynamite. The job took until September. Who ordered it is disputed. The American Physical Society's historic-site page says the tower was destroyed "as ordered by the U.S. government." The Wikipedia article on the tower, citing period sources, calls the government story a wartime rumor and says the scrapping was ordered by the hotel owner George Boldt, who held the property against Tesla's debts.[38]

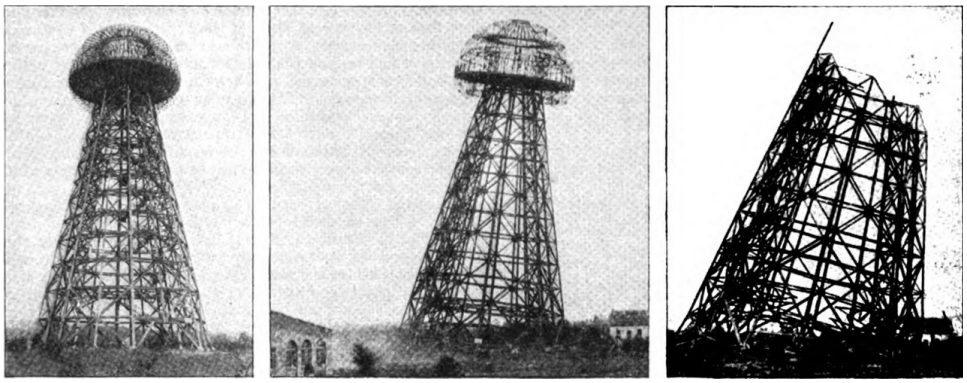
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[35] Engineering and Technology History Wiki (IEEE History Center), "Milestones: Reception of Transatlantic Radio Signals, 1901", undated web page. https://ethw.org/Milestones:Reception_of_Transatlantic_Radio_Signals%2C_1901. Accessed November 18, 2026.

[36] Smithsonian Magazine, "Nikola Tesla's tower that became a million-dollar folly.".

[37] Nikola Tesla, "My Inventions.".

[38] Wikipedia, "Wardenclyffe Tower."; American Physical Society, "Historic Sites.".



Wardenclyffe tower during demolition, 1917. Published in The Literary Digest, September 8, 1917. Public domain.

The brick laboratory survived. In 2012 a group called the Tesla Science Center at Wardenclyffe, working with the cartoonist Matt Inman of The Oatmeal, raised about $1.37 million online, and in May 2013 the group bought the 16-acre site to turn it into a museum. The American Physical Society marked it as a historic physics site in 2016.[39]

[39] American Physical Society, "Historic Sites.".

Chapter 6: The Later Years, 1917 to 1943, and the Fight Over the Papers

After Wardenclyffe, Tesla never again had a big backer. He kept inventing. His later patents cover a bladeless turbine (1913), a fountain (1914), speed indicators (1916 and 1918), a "valvular conduit" that lets fluid flow easily one way and not the other (1920), flow and frequency meters (1921 and 1922), and, last of all, two patents in 1928 for an aircraft that would take off straight up and then fly level.[40]

He also grew famous for his birthday press events. On July 10, 1934, his 78th birthday, he announced a beam that he said could "destroy an army 100 miles away" and bring down "a fleet of 10,000 airplanes." The Associated Press noted that he "gave only a general description of the apparatus." A year later, on his 79th birthday, he told reporters he had once started an earthquake. Both stories are in Chapter 12.[41]

Death and the papers

Tesla died on January 7, 1943, at the Hotel New Yorker in New York City. He was 86.[42]

What happened next is documented in the FBI's own file:

- The morning after Tesla's death, his nephew Sava Kosanovic went to the room with two others. The FBI file records that the visit happened on January 8.[43]
- On January 9, according to the same file, Walter Gorsuch of the Office of Alien Property and a man named Fitzgerald "went to the New Yorker Hotel and seized all of Tesla's property, consisting of about two truckloads of material." The file mentions "some eighty trunks."[44]
- The FBI's headquarters did not want the case. An official named Tamm wrote, "There appears to be no need for us to mess around in it."[45]
- The government asked Dr. John G. Trump, an electrical engineer at the Massachusetts Institute of Technology (MIT), to look through the papers for anything of military value. After a three-day review he wrote that Tesla's "thoughts and efforts during at least the past 15 years were primarily of a speculative, philosophical, and somewhat promotional character," and did "not include new, sound, workable principles or methods for realizing such results."[46]

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[40] Nikola Tesla Museum, "List of Nikola Tesla's patents.".

[41] Associated Press, "Tesla Claims New Death Ray Can Make Nation Impregnable."; United Press, "Nikola Tesla Reveals Many Discoveries On Birthday.".

[42] Encyclopaedia Britannica, "Nikola Tesla."; APS News, "This Month in Physics History."; PBS, Tesla: Life and Legacy, "The Missing Papers", undated web page. https://www.pbs.org/tesla/ll/ll_mispapers.html. Accessed November 18, 2026.

[43] Federal Bureau of Investigation, "Nikola Tesla file, page 148 of the 265-page release (summary of the accounts of agents Foxworth and Fitzgerald)", 1943, released through the FBI Records Vault. Page image and transcription read on Tesla Universe. https://teslauniverse.com/nikola-tesla/documents/nikola-tesla-fbi-files/148. Accessed November 18, 2026; PBS, "The Missing Papers.".

[44] Federal Bureau of Investigation, "Nikola Tesla file, page 148 of the 265-page release.".

[45] Federal Bureau of Investigation, "Nikola Tesla file, page 148 of the 265-page release.".

[46] PBS, "The Missing Papers."; Sarah Pruitt, History.com, "The Mystery of Nikola Tesla's Missing Files", May 3, 2018, updated May 27, 2025. https://www.history.com/articles/nikola-tesla-files-declassified-fbi. Accessed November 18, 2026; MuckRock, "FBI releases catalog of Nikola Tesla's writings seized after his death", March 19, 2018. https://www.muckrock.com/news/archives/2018/mar/19/fbi-tesla-ii. Accessed November 18, 2026.

- In 1952, after a court ruled Kosanovic the rightful heir, Tesla's papers and belongings were shipped to Belgrade, where they became the core of the Nikola Tesla Museum.[47]

Two loose ends keep this story alive. First, the FBI counted about 80 trunks, but according to the Tesla biographer Marc Seifer, as quoted by History.com, only 60 reached Belgrade. Second, PBS reports that copies of some of Tesla's papers on his beam weapon went to Wright Field in Ohio (today Wright-Patterson Air Force Base), and that "nobody knows what happened to them." Those are real gaps in the record. They are not evidence that a working invention was hidden. In 2018 the FBI released another 64 pages from its file, including a catalog of the seized papers.[48]

The unit and the name

Tesla's name lives on in physics. In 1960 the General Conference on Weights and Measures named the unit of magnetic flux density the tesla. You will see it today on every MRI machine, rated in teslas.[49]

[47] Sarah Pruitt, "The Mystery of Nikola Tesla's Missing Files."; PBS, "The Missing Papers.".

[48] Sarah Pruitt, "The Mystery of Nikola Tesla's Missing Files."; PBS, "The Missing Papers."; MuckRock, "FBI releases catalog of Nikola Tesla's writings seized after his death.".

[49] Wikipedia, "Tesla (unit)", undated. https://en.wikipedia.org/wiki/Tesla_(unit). Accessed November 18, 2026.

Part Two: The Inventions

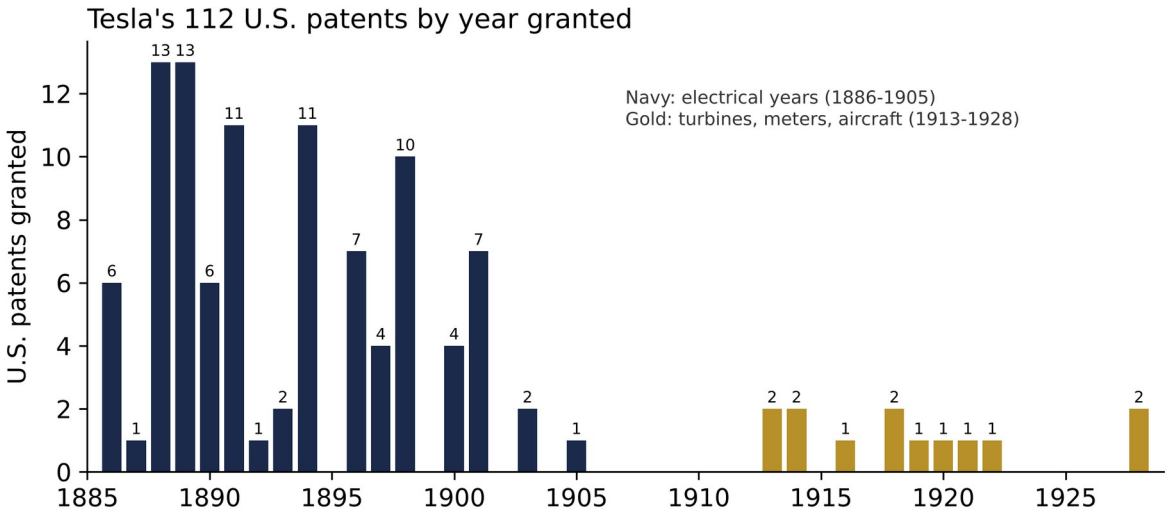
Chapter 7: What the Patents Show

The cleanest way to measure what Tesla invented is to count and read his patents. A patent is a public record with a filing date, a grant date and a written description. It does not prove a machine worked well, but it proves exactly what the inventor claimed and when.

How many?

The Nikola Tesla Museum in Belgrade, which holds his papers, says: "Tesla held a total of 112 registered US patents," and "199 patents held by Tesla have been identified from another 26 countries." Its total: "at least 311 patents from 27 different countries on five continents."[50]

The museum's own downloadable patent list matches the 112 United States patents. Its table of foreign patents adds up to 197, two fewer than the web page says. The Tesla Science Foundation gives 196 foreign patents and "at least 308" in all. These small gaps come from how reissues, renewals and divisions are counted. They do not change the picture.[51]



Source: Nikola Tesla Museum, List of Nikola Tesla's patents (English); count by grant year.

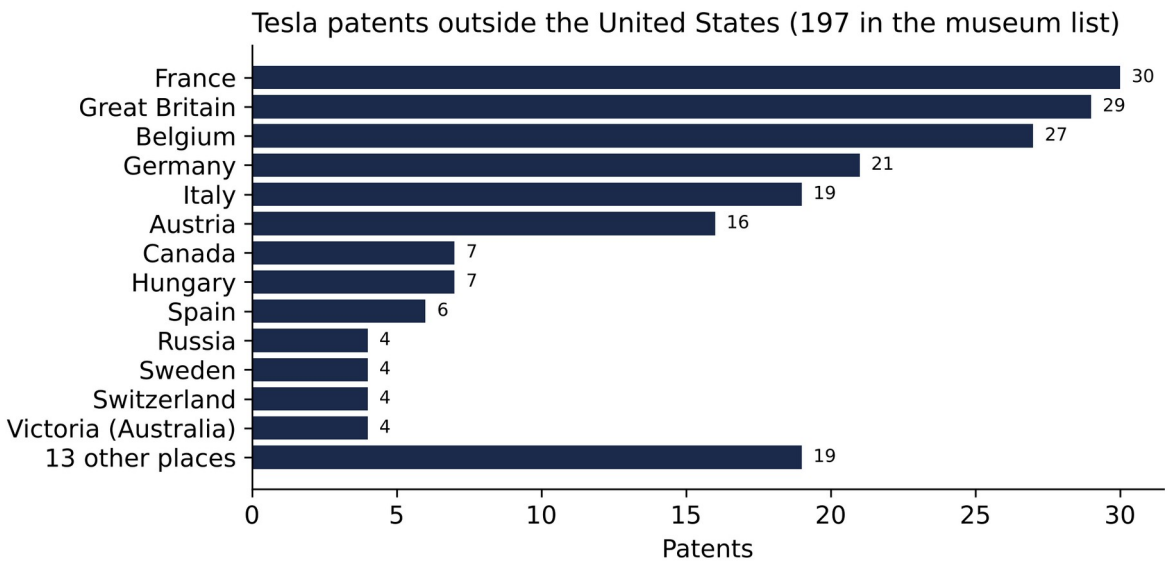
The chart tells Tesla's career in one picture. Nearly all his United States patents came between 1886 and 1905: the arc lamps, the motors and power system, the high-frequency coils, the boat and the wireless patents. After Wardenclyffe failed, the patents slow to one or two a year and turn mechanical: turbines, meters, a fountain and an aircraft.[52]

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[50] Nikola Tesla Museum, Belgrade, "Patents", undated web page. https://tesla-museum.org/en/nikola-tesla-2/patents/. Accessed November 18, 2026.

[51] Nikola Tesla Museum, "List of Nikola Tesla's patents."; Tesla Science Foundation, "Patents.".

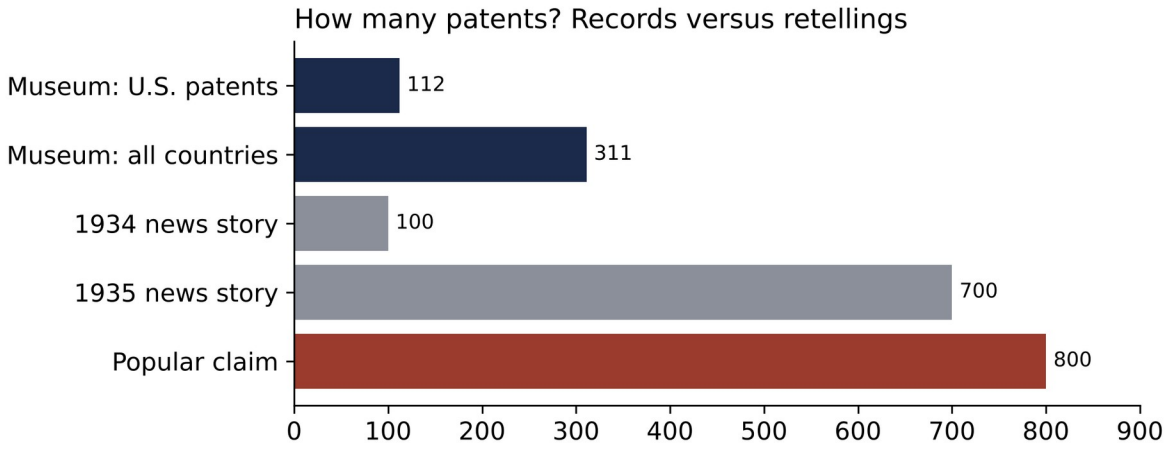
[52] Nikola Tesla Museum, "List of Nikola Tesla's patents.".



Source: Nikola Tesla Museum patent list, overview table. The museum web page gives 199.

The inflated numbers

Popular articles often say Tesla had 700, 800 or even more patents. The earliest version of a big number I found is from Tesla's own lifetime. In 1935 a United Press story about his birthday called him the inventor "whose 700 basic patents include methods of large scale distribution of electricity." A year earlier the Associated Press had said "100 patents." Neither number came from a patent search. The museum's count of 112 United States patents and about 311 worldwide is the one backed by a list you can check, number by number.[53]



Sources: Nikola Tesla Museum; Evening Star, July 11, 1934 (AP); Waterbury Democrat, July 11, 1935 (UP). "800" is the figure in popular retellings.

The patents that matter most

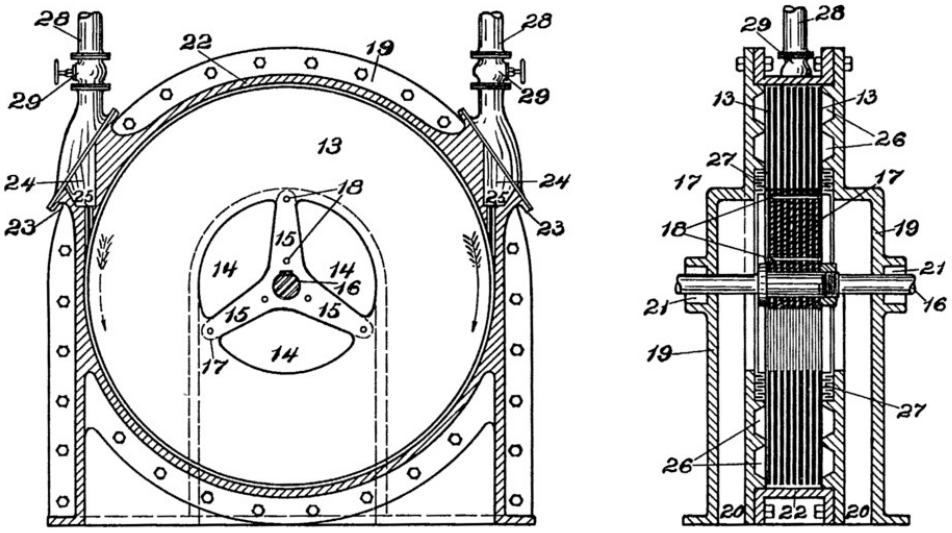
Patent	Title	Granted	Why it matters
334,823	Commutator for	January 26, 1886	His first U.S. patent

[53] United Press, "Nikola Tesla Reveals Many Discoveries On Birthday."; Associated Press, "Tesla Claims New Death Ray Can Make Nation Impregnable."; Nikola Tesla Museum, "Patents.".

Patent	Title	Granted	Why it matters
	Dynamo-Electric Machines		
381,968	Electro-Magnetic Motor	May 1, 1888	The rotating-field induction motor
382,280	Electrical Transmission of Power	May 1, 1888	The polyphase power system
454,622	System of Electric Lighting	June 23, 1891	The resonant transformer (Tesla coil)
514,169	Reciprocating Engine	February 6, 1894	The steam-driven oscillator behind the earthquake story
613,809	Method of and Apparatus for Controlling Mechanism of Moving Vessels or Vehicles	November 8, 1898	Remote control by radio
645,576	System of Transmission of Electrical Energy	March 20, 1900	The four tuned circuits cited in the radio case
685,957	Apparatus for the Utilization of Radiant Energy	November 5, 1901	Collecting energy from radiation, often cited by "free energy" fans
787,412	Art of Transmitting Electrical Energy Through the Natural Mediums	April 18, 1905	His theory of sending power through the Earth
1,061,206	Turbine	May 6, 1913	The bladeless disk turbine
1,119,732	Apparatus for Transmitting Electrical Energy	December 1, 1914	The Wardenclyffe-type tower
1,329,559	Valvular Conduit	February 3, 1920	A one-way flow passage with no moving parts
1,655,114	Apparatus for Aerial Transportation	January 3, 1928	His last patent: a take-off-straight-up aircraft

Source for every row: the Nikola Tesla Museum patent list, checked against Google Patents for 381,968, 613,809, 645,576 and 1,061,206.[54]

[54] Nikola Tesla Museum, "List of Nikola Tesla's patents."; Nikola Tesla, "Electro-Magnetic Motor."; Nikola Tesla, "Method of and Apparatus for Controlling Mechanism of Moving Vessels or Vehicles."; Nikola Tesla, "System of Transmission of Electrical Energy, U.S. Patent 645,576", filed September 2, 1897, granted March 20, 1900. https://patents.google.com/patent/US645576A/en. Accessed November 18, 2026; Nikola Tesla, "Turbine, U.S. Patent 1,061,206", filed January 17, 1911 (division of an application filed October 21, 1909), granted May 6, 1913. https://patents.google.com/patent/US1061206A/en. Accessed November 18, 2026.



The bladeless turbine, from Tesla's U.S. Patent 1,061,206 (1913). Fluid enters at the edge and spirals between closely spaced flat disks, dragging them around. Public domain.

What the patents do not show

A patent is not a test report. Three of Tesla's most quoted patents show the gap:

- **The radiant energy patent (685,957)**, "Apparatus for the Utilization of Radiant Energy," is often shared online as proof of a free-energy machine. Collecting energy from radiation such as sunlight is real physics, the basis of today's solar cells. But a patent title is not a power measurement, and no test of this apparatus producing large amounts of power has been published. The patent text itself is modest. It opens: "It is well known that certain radiations," such as ultraviolet light and cathode and Roentgen rays, can charge and discharge conductors. Tesla's device is an insulated plate exposed to the rays, wired to a condenser (a capacitor) whose other side goes to the ground. Charge builds up slowly, and when enough has collected, "the accumulated charge will pass through the circuit" and work a small receiver, such as a relay. It is a way to collect and use a trickle of charge, not a power plant.[55]
- **The aircraft patents (1,655,113 and 1,655,114)** describe a machine Tesla never built. Later tilt-rotor aircraft came out of decades of separate engineering.[56]
- **The turbine (1,061,206)** is a real and clever design, but it never displaced bladed turbines in power plants. Its best uses today are in pumps and small special machines. **[Not verified]**: I did not find an industry source I could open that measures how widely Tesla-type pumps are used today.[57]

[55] Nikola Tesla, "Apparatus for the Utilization of Radiant Energy, U.S. Patent 685,957", filed March 21, 1901, granted November 5, 1901. Patent text read in a scanned copy hosted by the tesla220 project. https://tesla220.github.io/patents/pdf/US685957.pdf. Accessed November 18, 2026; Nikola Tesla Museum, "List of Nikola Tesla's patents.".

[56] Nikola Tesla Museum, "List of Nikola Tesla's patents.".

[57] Nikola Tesla, "Turbine.".

Chapter 8: The Science in Plain Words

You do not need to be an engineer to judge most Tesla claims. You need four ideas.

Idea 1: The rotating magnetic field (proven, and everywhere)

Alternating current, or AC, flows one way, then the other, many times a second. On its own, one AC current in a coil makes a magnetic field that just pulses back and forth. Tesla's insight was to use two or more AC currents that are out of step, so that each one peaks a little after the last. Feed those currents into coils placed around a ring, and the strongest point of the magnetic field moves around the ring like a runner on a track. That moving field drags a metal rotor around with it. No brushes and no sliding contacts are needed.[58]

The chart in Chapter 3 shows three currents, each a third of a cycle behind the last. That is three-phase power, the kind that runs factories, pumps and the big motors in buildings today.

What holds up: this is Tesla's greatest and most lasting work, and his 1888 patents describe it in detail.

What to keep in mind: Tesla did not discover electricity or magnetism, did not invent alternating current itself, and was not alone in finding the rotating field. His own memoir shows AC was already in use: when he began working with Westinghouse in 1888, he wrote, the company's engineers "had adopted 133 cycles" for their existing AC equipment, and he had to adapt his motor to it.[59] Galileo Ferraris published the same principle in 1888. Many engineers at Westinghouse and elsewhere turned the idea into a working grid.[60]

Idea 2: Resonance (proven, and powerful, but not magic)

Every coil and capacitor circuit has a natural frequency at which it "rings," the way a bell or a guitar string does. Push it at that frequency and the swings build up. Engineers write it as a short formula: the natural frequency equals 1 divided by (2 times pi times the square root of L times C), where L is the coil's inductance and C is the capacitor's capacitance. Tesla built his coils so that the parts rang together, and that is how he got millions of volts.[61]

What holds up: resonance is real, and Tesla was a master of it. It is also the key to tuning a radio to one station, as the Supreme Court noted in 1943 (Chapter 9).

What to keep in mind: resonance stores up energy that you put in over many cycles. It does not create energy. A very high voltage is not the same as a lot of usable power. The power still has to come from the supply, and some of it is always lost as heat.

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[58] Nikola Tesla, "Electro-Magnetic Motor.".

[59] Nikola Tesla, "My Inventions.".

[60] Wikipedia, "Galileo Ferraris.".

[61] Nikola Tesla, "My Inventions.".

Idea 3: Wireless power (real, but distance is the problem)

Sending power without wires is real. Your phone charger pad does it. So does the tag reader at a store door. Tesla lit lamps without wires in his lab in the 1890s.[62]

The hard part is distance. The power a receiver can collect usually falls off quickly as it moves away from the sender. A useful test of any wireless power claim is a simple ratio: how much power came out at the far end, divided by how much went in at the sender. Tesla claimed in print that his system could send power "clear across the Globe" with "a loss not exceeding a few per cent." He never published measurements that let anyone check that ratio, and no one has built a system that does it.[63]

Idea 4: The Earth as a bell (partly right)

Tesla believed the whole Earth could be made to ring electrically at certain frequencies, like a tuning fork. He called this the discovery of "terrestrial stationary waves."[64]

There is something real here. The space between the ground and the upper atmosphere does ring at very low frequencies, set off by lightning around the world. These are called Schumann resonances, after the German physicist Winfried Otto Schumann, who predicted them in 1952. The main one is about 7.8 to 8 cycles per second. A 2016 scientific review by Colin Price notes that the idea of natural global electrical resonances was first raised by George FitzGerald in 1893 and "then again by Nikola Tesla in 1905," and that measurements by Balser and Wagner later confirmed them.[65]

What holds up: Tesla was one of the first to guess that the Earth has electrical resonances, and he was right that they exist.

What to keep in mind: these natural signals are extremely weak. That the Earth rings does not mean it can carry industrial power around the world with little loss. And the claim that Tesla "discovered the Schumann resonance" goes too far: he proposed the idea, others predicted it with the math, and others measured it.

The rule that settles most free-energy claims

Every machine obeys a bookkeeping rule: the energy that comes out, plus the energy lost as heat, can never be more than the energy that went in, plus any energy that was already stored inside. Physicists call this conservation of energy. It has been tested for more than 150 years.

When a story says a Tesla device made power "from the air" with no fuel and no battery, the first question is always the same: where did the energy come from? Sunlight, radio waves, heat and wind are real sources, and machines can tap them. A box that puts out more than it takes in from any source is not a lost invention. It is a measuring mistake or a hoax.

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[62] Nikola Tesla, "My Inventions.".

[63] Nikola Tesla, "My Inventions.".

[64] Nikola Tesla, "My Inventions.".

[65] Colin Price, "ELF Electromagnetic Waves from Lightning: The Schumann Resonances", Atmosphere 7, no. 9 (2016): 116. https://mdpi.com/2073-4433/7/9/116. Accessed November 18, 2026.

Chapter 9: Who Invented Radio? The 1943 Supreme Court Case

Few Tesla claims are repeated more often than this one: "The Supreme Court ruled that Tesla invented radio, not Marconi." The case is real. The summary is wrong. Here is what the Court actually did.

The case

The case is Marconi Wireless Telegraph Company of America versus United States, 320 U.S. 1. It was argued April 9 to 12, 1943, and decided June 21, 1943, about five months after Tesla died. Chief Justice Harlan Fiske Stone wrote the opinion.[66]

The Marconi Company had sued the United States government for using radio equipment that, it said, infringed four patents, including Marconi's Patent 763,772 of 1904 on tuned radio circuits. The lower court, the Court of Claims, held most of the claims in that patent invalid. The Supreme Court agreed and affirmed that part of the judgment. On one remaining claim, Claim 16, it sent the case back to the lower court.[67]

What the Court said about Tesla

The Court looked at earlier patents by three men: Oliver Lodge of England, John Stone Stone of the United States, and Tesla. About Tesla's Patent 645,576, filed September 2, 1897, the Court wrote that it "disclosed a four-circuit system, having two circuits each at transmitter and receiver, and recommended that all four circuits be tuned to the same frequency." It concluded: "Tesla thus anticipated the following features of the Marconi patent," and later, "he anticipated the four circuit tuned combination of Marconi."[68]

But the Court did not stop there. It also said: "A feature of the Marconi combination not shown by Tesla was the use of a variable inductance as a means of adjusting the tuning," and that this was "developed by Lodge after Tesla's patent but before the Marconi patent." The Court found that Lodge and Stone, not Tesla alone, supplied the rest of what Marconi claimed.[69]

The Court even pointed out what Tesla was really trying to do. His apparatus "was devised primarily for the transmission of energy," and a footnote states plainly: "Tesla in fact did not use Hertzian waves," meaning ordinary radio waves. His idea was to make the upper air a conductor using enormous voltages and very high altitudes. Tesla's patent did say the apparatus could be used "when it is desired to transmit intelligible messages to great distances."[70]

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[66] Supreme Court of the United States, "Marconi Wireless Telegraph Co. of America v. United States, 320 U.S. 1 (1943)", argued April 9-12, 1943, decided June 21, 1943. Opinion of Chief Justice Stone; Justice Frankfurter and Justice Rutledge dissenting in part. Text from the Legal Information Institute, Cornell Law School. https://www.law.cornell.edu/supremecourt/text/320/1. Accessed November 18, 2026.

[67] Supreme Court of the United States, "Marconi Wireless Telegraph Co. of America v. United States, 320 U.S. 1.".

[68] Supreme Court of the United States, "Marconi Wireless Telegraph Co. of America v. United States, 320 U.S. 1."; Nikola Tesla, "System of Transmission of Electrical Energy.".

[69] Supreme Court of the United States, "Marconi Wireless Telegraph Co. of America v. United States, 320 U.S. 1.".

[70] Supreme Court of the United States, "Marconi Wireless Telegraph Co. of America v. United States, 320 U.S. 1."; Nikola Tesla, "System of Transmission of Electrical Energy.".

What the Court did not say

The Court did not declare Tesla the inventor of radio. It decided whether certain claims in one Marconi patent were new enough to be valid, and it found that they were not, because Lodge, Stone and Tesla had taught most of the same things earlier. Two justices disagreed in part. Justice Felix Frankfurter wrote that Marconi had "hit upon something that had eluded the best brains of the time," and named "Clerk Maxwell and Sir Oliver Lodge and Nikola Tesla" among them. Justice Wiley Rutledge wrote that, until then, the law had united "in acknowledging Marconi as the first to establish wireless telegraphy on a commercial basis."[71]

The Nobel Prize date

Marconi won the Nobel Prize in Physics in 1909, sharing it with Karl Ferdinand Braun of Germany, "in recognition of their contributions to the development of wireless telegraphy." Some popular accounts give the year as 1911. The Nobel Foundation's own record says 1909.[72]

The fair verdict

Radio was not invented by one person. Tesla's 1897 patent on tuned circuits was a real and early contribution, and the Supreme Court said so. Lodge, Stone, Braun, Marconi and others made contributions too, and Marconi was the one who made long-distance wireless messages a working business. The claim "the Supreme Court ruled Tesla invented radio" is **False**. The claim "the Supreme Court found that Tesla's patent anticipated key parts of Marconi's tuning patent" is **True**.

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[71] Supreme Court of the United States, "Marconi Wireless Telegraph Co. of America v. United States, 320 U.S. 1.".

[72] Nobel Prize Outreach, "The Nobel Prize in Physics 1909", undated web page. https://www.nobelprize.org/prizes/physics/1909. Accessed November 18, 2026.

Part Three: The Fact Check

This part is about claims, not history. Chapter 10 rates the most common claims about Tesla in one table. Chapter 11 shows, step by step, how one false story got started. Chapter 12 traces the biggest legends back to their earliest record. Chapter 13 checks ten of the most shared Tesla quotes. Every legend here is labeled as a claim. None of them is treated as fact unless the records support it.

Chapter 10: Thirty Claims, Rated

#	Claim	Verdict	What the records show
1	Tesla invented the AC induction motor and polyphase power system.	**True**	Patents 381,968 and 382,280 (1888) and the patents that followed describe both in detail. Ferraris found the rotating field independently in Turin but did not patent it.
2	Tesla invented alternating current.	**False**	Alternating current was known and in use before his motor. His patents improve on it; they do not claim to invent it.
3	Tesla had the motor idea in a Budapest park in 1882.	**Partly true**	It is Tesla's own account, written in 1919. No record from 1882 confirms it. His 1887 filing proves he had it by then.
4	Edison promised Tesla $50,000 and called it a joke.	**Partly true**	Tesla wrote that "the Manager" promised the money, not Edison. No pay record confirms the amount.
5	Tesla invented the Tesla coil.	**True**	Patent 454,622 (1891).
6	Tesla built a radio-controlled boat in 1898.	**True**	Patent 613,809 and Tesla's detailed account, including the Patent Office examiner's visit.

#	Claim	Verdict	What the records show
7	The Supreme Court ruled that Tesla invented radio.	**False**	The 1943 case found that Tesla, Lodge and Stone anticipated parts of one Marconi patent. It did not name an inventor of radio.
8	Tesla's 1897 patent anticipated Marconi's four-circuit tuning.	**True**	The Court's own words in 320 U.S. 1.
9	Marconi won the Nobel Prize in 1911.	**False**	1909, shared with Braun.
10	Tesla and Edison were to share the 1915 Nobel Prize but refused.	**False**	A London newspaper's Copenhagen correspondent reported a shared prize; a week later Reuters reported it went to the Braggs. Edison was nominated once (1915), Tesla once (1937). See Chapter 11.
11	Tesla held 700 or 800 patents.	**False**	The museum counts 112 U.S. and about 311 worldwide.
12	Tesla lit 200 lamps 25 miles away at Colorado Springs.	**Inconclusive**	No record made at the time. Tesla's own claim was a current that could light 200 lamps sent "around the Globe."
13	Tesla proved worldwide wireless power at Colorado Springs.	**False**	Only Tesla's own claim; no published measurements; never repeated.
14	Tesla's experiments blacked out the Colorado Springs power plant.	**Inconclusive**	Two versions that disagree; no utility record found.
15	The famous photo of Tesla sitting amid huge sparks is real.	**Partly true**	It is a real 1899 photograph, but a double exposure. He was not in the room with the sparks.
16	J. P. Morgan funded	**True**	Smithsonian, Wikipedia

#	Claim	Verdict	What the records show
	Wardenclyffe with $150,000.		(citing the 1901 contract) and Tesla's own memoir.
17	Morgan killed Wardenclyffe because free power could not be metered.	**Inconclusive, leaning False**	No record of Morgan saying it. Tesla himself wrote that Morgan kept his promise "to the letter." See Chapter 12.
18	The government tore down Wardenclyffe as a spy threat.	**Inconclusive**	A steel company dynamited it in 1917. The American Physical Society page says the government ordered it; Wikipedia, citing period sources, calls that a wartime rumor and says the property holder ordered the scrapping.
19	Tesla caused an earthquake in New York with a small oscillator.	**Inconclusive**	Tesla told the story to reporters in 1935. No damage report or seismic record backs it. See Chapter 12.
20	Tesla had a working death ray.	**False as a working weapon**	He announced one in 1934 and gave "only a general description." No device was ever shown or tested.
21	Tesla built an electric car powered by a box that drew energy from the air.	**False**	No record from 1931; the story surfaced decades later; his grand-nephew called it a fabrication.
22	The government seized Tesla's papers after he died.	**True**	FBI file: the Office of Alien Property took "about two truckloads" on January 9, 1943.
23	The seized papers held a working secret weapon or energy machine.	**False, as far as the records go**	John G. Trump's 1943 review found nothing "new, sound, workable." Some trunks and copies are

#	Claim	Verdict	What the records show
			unaccounted for (see claim 24).
24	Some of Tesla's papers are missing.	**Partly true**	The FBI counted about 80 trunks; a biographer says about 60 reached Belgrade. Copies sent to Wright Field are unaccounted for. Missing is not the same as secret.
25	Tesla discovered the Schumann resonance.	**Partly true**	He proposed Earth resonances in 1905 (FitzGerald had in 1893). Schumann predicted them in 1952; others measured them.
26	Tesla invented radar.	**False**	In August 1917 he described finding ships with a short-wave ray "flashed out intermittently," reflected back and shown on a fluorescent screen. That is the radar idea, but Christian Hulsmeyer had already shown ships could be detected by reflected radio waves in 1904, and Tesla never built a radar set. See Chapter 12.
27	Tesla discovered X-rays before Roentgen.	**False**	Roentgen found X-rays on November 8, 1895, and reported them on December 28, 1895. Tesla later said he had been studying the same kind of radiation since 1894, but he published nothing on it before Roentgen, and he gave Roentgen full

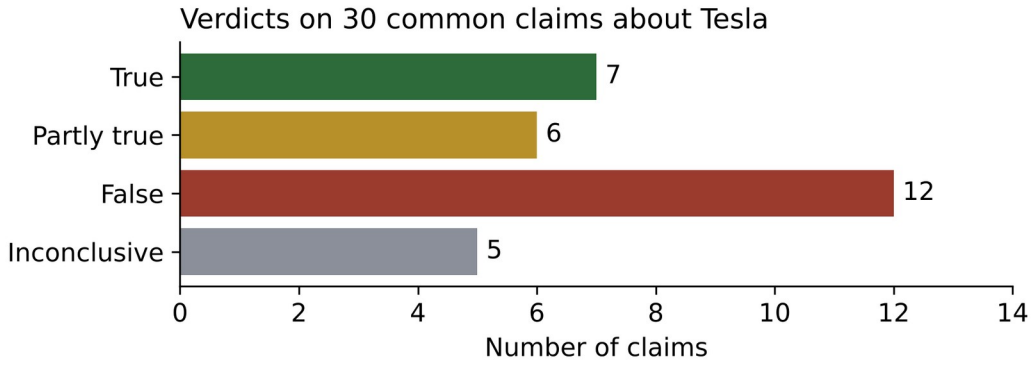
#	Claim	Verdict	What the records show
			credit.
28	Tesla predicted the smartphone.	**True, as a prediction**	In Collier's, January 30, 1926, he said wireless instruments would be simple enough that "a man will be able to carry one in his vest pocket." The quote is real. The word smartphone is ours.
29	Tesla invented the fluorescent light and the neon sign.	**Partly true**	He was one of the earliest to make and show glowing gas-tube lamps (1891 lecture, 1893 fair). Neon signs came from Georges Claude in 1910, and the modern fluorescent tube from later work at General Electric in the 1930s.
30	The Tesla car company was started by Tesla's family or estate.	**False**	Tesla Motors was incorporated on July 1, 2003, by Martin Eberhard and Marc Tarpenning, and named in his honor. Neither the sources nor the company history show any family role.

Sources for the table are in the chapters where each claim is discussed, and Appendix B maps each claim to its sources.[73]

[73] Nikola Tesla, "Electro-Magnetic Motor."; Nikola Tesla Museum, "List of Nikola Tesla's patents."; Nikola Tesla, "My Inventions."; Nikola Tesla, "Method of and Apparatus for Controlling Mechanism of Moving Vessels or Vehicles."; Supreme Court of the United States, "Marconi Wireless Telegraph Co. of America v. United States, 320 U.S. 1."; Nobel Prize Outreach, "The Nobel Prize in Physics 1909."; Evening Star (Washington, D.C.), "Award of Nobel Prizes: Thomas A. Edison and Nikola Tesla Among the Recipients", November 6, 1915, page 1. Library of Congress, Chronicling America. https://www.loc.gov/resource/sn83045462/1915-11-06/ed-1/?sp=1. Accessed November 18, 2026; Evening Star (Washington, D.C.), "Nobel Prize Awards: Edison and Tesla Not Recipients for Physics Research, As Reported", November 14, 1915, page 3. Library of Congress, Chronicling America. https://www.loc.gov/resource/sn83045462/1915-11-14/ed-1/?sp=3. Accessed November 18, 2026; Physics Today (American Institute of Physics), "Physics Nobel nominees, 1901-66", undated web page. https://physicstoday.aip.org/news/physics-nobel-nominees-1901-66. Accessed November 18, 2026; Nikola Tesla Museum, "Patents."; PBS, "Colorado Springs."; Wikipedia, "Tesla Experimental Station."; Wikimedia Commons, "File records for the photographs in this book."; Smithsonian Magazine, "Nikola Tesla's tower that became a million-dollar folly."; Wikipedia, "Wardenclyffe Tower."; American Physical Society, "Historic Sites."; United Press, "Nikola Tesla Reveals Many Discoveries On Birthday."; Associated Press, "Tesla Claims New Death Ray Can Make Nation Impregnable."; Jeff Glorfeld, Cosmos, "Did Nikola Tesla build a revolutionary electric car?", Cosmos 79, Winter 2018. https://cosmosmagazine.com/technology/did-nikola-tesla-build-a-revolutionary-electric-car. Accessed November 18, 2026; Wikipedia, "Nikola Tesla electric car hoax", undated. https://en.wikipedia.org/wiki/Nikola_Tesla_electric_car_hoax. Accessed November 18, 2026; Federal Bureau of Investigation, "Nikola

The score

Of the 30 claims, 7 are True, 6 are Partly true, 12 are False and 5 are Inconclusive (claim 17 counts as Inconclusive, and claim 28 counts as True). The pattern is clear. The claims about what Tesla built and patented mostly hold up. The claims about secret machines, villains and cover-ups mostly do not.



Source: Chapter 10 of this book.

Tesla file, page 148 of the 265-page release."; PBS, "The Missing Papers."; Sarah Pruitt, "The Mystery of Nikola Tesla's Missing Files."; Colin Price, "ELF Electromagnetic Waves from Lightning."; Wikipedia, "Galileo Ferraris."; H. Winfield Secor, The Electrical Experimenter, "Tesla's Views on Electricity and the War", August 1917, pages 229, 230 and 270. Text read on Tesla Universe. https://teslauniverse.com/nikola-tesla/articles/teslas-views-electricity-and-war. Accessed November 18, 2026; Joanna Goodrich, IEEE Spectrum, "How the Telemobiloskop Paved the Way for Modern Radar Systems", November 5, 2019. https://spectrum.ieee.org/how-the-telemobiloskop-paved-the-way-for-modern-radar-systems. Accessed November 18, 2026; William B. Ashworth Jr., Linda Hall Library, "Scientist of the Day: Wilhelm Rontgen", November 8, 2024. https://www.lindahall.org/about/news/scientist-of-the-day/wilhelm-rontgen-2/. Accessed November 18, 2026; Maja Hrabak, Ranka Stern Padovan, Marko Kralik, David Ozretic and Kristina Potocki, "Nikola Tesla and the Discovery of X-rays", RadioGraphics, July 2008. Text read on Tesla Universe. https://teslauniverse.com/nikola-tesla/articles/nikola-tesla-and-discovery-x-rays. Accessed November 18, 2026; Snopes, "Did Nikola Tesla Describe Cell Phones in 1926?", February 7, 2021. Quotes John B. Kennedy's interview with Tesla in Collier's, January 30, 1926. https://www.snopes.com/fact-check/tesla-cell-phones-1926/. Accessed November 18, 2026; Nikola Tesla, "Experiments with Alternate Currents of Very High Frequency and Their Application to Methods of Artificial Illumination."; National High Magnetic Field Laboratory, "Fluorescent Lamps - 1934", undated web page. https://nationalmaglab.org/magnet-academy/history-of-electricity-magnetism/museum/fluorescent-lamps-1934/. Accessed November 18, 2026; Atlas Obscura, "Tesla neon light invention at the World's Fair", undated web page. https://www.atlasobscura.com/articles/tesla-neon-light-invention-worlds-fair. Accessed November 18, 2026; Nancy Dunham, Mental Floss, "10 Things You May Not Know About Tesla Motors", September 6, 2018, updated August 8, 2023. https://www.mentalfloss.com/article/66675/10-things-you-may-not-know-about-tesla-motors. Accessed November 18, 2026.

Chapter 11: How a Legend Grows: The 1915 Nobel Prize Story

The Nobel story is a good case study, because every step of it can be traced in newspapers you can read online for free.

The claim. Tesla and Edison were chosen to share the 1915 Nobel Prize in Physics, but one or both refused to share it with the other, so neither got it.

Step 1: The first report. On November 6, 1915, the Evening Star in Washington ran a front-page item datelined London: "The Copenhagen correspondent of the Daily Telegraph sends the following: The Swedish government has decided to distribute the Nobel prizes next week as follows: Physics, Thomas A. Edison and Nikola Tesla." Many American papers carried the same report that week.[74]

Notice the chain: a correspondent in Denmark, reporting to a London paper, reporting what "the Swedish government" had decided. The Nobel physics prize is not awarded by the Swedish government at all. It is awarded by the Royal Swedish Academy of Sciences.

Step 2: The correction. Eight days later, on November 14, 1915, the same paper ran: "Edison and Tesla Not Recipients for Physics Research, As Reported." A Reuters dispatch from Stockholm said the physics prize would be divided between William Henry Bragg and his son, William Lawrence Bragg, for their work on crystals using X-rays. The article even recalled the November 6 report it was correcting.[75]

Step 3: The records. The Nobel nomination records, opened to the public decades later, show that Edison received exactly one nomination for the physics prize, in 1915, and Tesla received exactly one, in 1937.[76]

Step 4: The legend. Somewhere after 1915, the mistaken report and its correction were turned into a story with a motive: the two men hated each other too much to share. I could not find the first appearance of the "refused to share" version, so I mark its origin **[Not verified]**. What the records do show is that there was never an award to refuse. The Braggs got the prize. Tesla was not even nominated that year.

Verdict: False. The 1915 report was real. It was wrong, and it was corrected within days.

The lesson applies to every legend in this book. A real newspaper clipping is not the same as a real event. The question is always whether the clipping was the first word or the last.

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[74] Evening Star, "Award of Nobel Prizes.".

[75] Evening Star, "Nobel Prize Awards.".

[76] Physics Today, "Physics Nobel nominees, 1901-66.".

Chapter 12: The Big Legends, Traced

For each legend, I give the claim, the earliest record I could find, how it spread, the strongest evidence for and against, and a verdict. "Earliest record I could find" means just that. The true first appearance may be earlier and simply not online.

Legend 1: The 200 lamps, 25 miles away

The claim. At Colorado Springs in 1899, Tesla lit 200 electric lamps 25 miles (some say 26) from his laboratory, with no wires.

Earliest record I found. Tesla's own "World-System" text, reprinted in his 1919 memoir, which says his Magnifying Transmitter "passed a current, sufficient to light more than two hundred incandescent lamps, around the Globe."[77]

How it spread. The number 200 survived, but the setting changed from a current sent around the globe to a field of lamps 25 miles away. Many popular books and websites now give the 25-mile version. I could not open a copy of the earliest biography often blamed for the change, so I do not name it. **[Not verified]**

Evidence for. Tesla clearly did light lamps without wires in his laboratories, and PBS reports "some reports" that he lit tubes "several miles" away.[78]

Evidence against. No measurement, witness statement or newspaper report from 1899 or 1900 that I could find records 200 lamps lit 25 miles away. A Wikipedia article built on five Tesla biographies says only that bulbs "within 100 feet" of the lab glowed.[79]

What could change the verdict. A dated page in the Colorado Springs notebooks recording such a test, with the location of the lamps and the power used.

Verdict: Inconclusive. Possible in a limited form, but not established.

Legend 2: "Where do we put the meter?"

The claim. J. P. Morgan pulled his money from Wardenclyffe after realizing Tesla meant to give away free power, asking, "If anyone can draw on the power, where do we put the meter?"

Earliest record I found. None. I found no letter, interview or memoir in which Morgan or Tesla says this. The Smithsonian's account of Wardenclyffe does not mention it, and the long Wikipedia article on the tower does not contain the quote.[80]

Evidence against. Tesla himself, writing in 1919 about "various rumors which have reached me," said that Morgan "did not interest himself with me in a business way but in the same large spirit in which he

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[77] Nikola Tesla, "My Inventions.".

[78] PBS, "Colorado Springs.".

[79] Wikipedia, "Tesla Experimental Station.".

[80] Smithsonian Magazine, "Nikola Tesla's tower that became a million-dollar folly."; Wikipedia, "Wardenclyffe Tower.".

has assisted many other pioneers. He carried out his generous promise to the letter and it would have been most unreasonable to expect from him anything more."[81]

The likely real reasons. Costs ran far over the $150,000, Tesla's plans kept growing, and Marconi's simpler system crossed the Atlantic in 1901. Investors followed Marconi.[82]

Something else to remember. Wireless power would not have been free power. A giant transmitter still needs a power plant, fuel and staff, and someone has to pay for them.

Verdict: Inconclusive, leaning False. No source for the quote, and Tesla's own words point the other way.

Legend 3: The earthquake machine

The claim. In the 1890s Tesla attached a small mechanical oscillator to a building in Manhattan and nearly shook the neighborhood down, smashing the device with a hammer to stop it.

Earliest record I found. Tesla's own birthday press event in July 1935. A United Press story on July 11, 1935, reported that "Nikola Tesla's birthday revelation that he started an earthquake alarmed a downtown ghetto today," and called the device his "quakemaker." The same story said he also announced a motor run by "cosmic particles" from the sun.[83]

The real invention behind it. Tesla did patent a "Reciprocating Engine" in 1894, Patent 514,169. In it he wrote, "I employ the energy of steam or gas under pressure, acting through proper mechanism, to maintain in oscillation a piston," with a steady, "constant period." Shaking something at its natural frequency can make it move a lot. That part is real physics.[84]

Evidence against. I found no police report, newspaper story from the 1890s or seismic record of an earthquake or building damage near Tesla's lab. The story first appears, as far as I could find, about 40 years after the event, told by Tesla himself at an event built for headlines. A small machine's shaking is also limited by friction, the stiffness of the building and the power it can supply.

Verdict: Inconclusive. The machine was real. The earthquake has no record except Tesla's later word.

Legend 4: The death ray

The claim. Tesla built a working particle-beam weapon, a "death ray," that could knock down planes and armies, and the plans were stolen or hidden.

Earliest record. Tesla's own announcement on his 78th birthday, July 10, 1934. The Associated Press reported that he described a beam of particles, "driven electrically and projected in vast curtains," that could "destroy an army 100 miles away" and down "a fleet of 10,000 airplanes." He said he would offer

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[81] Nikola Tesla, "My Inventions.".

[82] Smithsonian Magazine, "Nikola Tesla's tower that became a million-dollar folly.".

[83] United Press, "Nikola Tesla Reveals Many Discoveries On Birthday.".

[84] Nikola Tesla, "Reciprocating Engine, U.S. Patent 514,169", filed August 19, 1893, granted February 6, 1894. https://patents.google.com/patent/US514169A/en. Accessed November 18, 2026.

it to the Geneva Disarmament Conference "in the interests of peace." The AP added that "Dr. Tesla gave only a general description of the apparatus."[85]

What happened next. No device was ever shown, tested or bought by any government. In 1943 the government's reviewer, John G. Trump, read Tesla's papers and concluded that his work in the past 15 years did "not include new, sound, workable principles or methods for realizing such results."[86]

What remains open. PBS reports that copies of Tesla's beam-weapon papers went to Wright Field and later disappeared. That is a gap in the paper trail, not proof of a working weapon.[87]

Verdict: False as a working weapon. The announcement was real. The weapon was never shown to exist.

Legend 5: The electric car that ran on the air

The claim. In 1931 Tesla took the engine out of a Pierce-Arrow car in Buffalo, New York, put in an electric motor and a box of radio tubes with an antenna, and drove it for a week at up to 90 miles an hour with no battery and no fuel.

Earliest record I found. Not 1931. The story is traced to a man named Peter Savo, who said he was Tesla's nephew and told it to an author named Heinrich Jebens. No contemporary record from 1931 exists that I or the fact-checkers I read could find.[88]

Evidence against. Cosmos magazine reported that "Tesla did not have a nephew named Peter Savo," that "no physical evidence of such a car as described by Savo has ever been produced," and that Tesla's grand-nephew, William Terbo, called the story a fabrication. The details also break the energy rule in Chapter 8: a box of tubes and an antenna cannot collect enough power from the air to drive a car at highway speed.[89]

Verdict: False.

Legend 6: The hidden papers and the cover-up

The claim. The government seized Tesla's papers because they contained world-changing secrets, and it still hides them.

What is documented. The seizure was real. The FBI file says the Office of Alien Property took "about two truckloads of material" from the Hotel New Yorker on January 9, 1943. The FBI itself declined to get involved. John G. Trump of MIT reviewed the papers and found nothing workable. In 1952 the papers went to Tesla's heir and then to Belgrade, where they are in the Nikola Tesla Museum. In 2018 the FBI released more of its file, including a catalog of what was seized.[90]

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[85] Associated Press, "Tesla Claims New Death Ray Can Make Nation Impregnable.".

[86] PBS, "The Missing Papers.".

[87] PBS, "The Missing Papers.".

[88] Wikipedia, "Nikola Tesla electric car hoax."; Jeff Glorfeld, "Did Nikola Tesla build a revolutionary electric car?".

[89] Jeff Glorfeld, "Did Nikola Tesla build a revolutionary electric car?".

[90] Federal Bureau of Investigation, "Nikola Tesla file, page 148 of the 265-page release."; PBS, "The Missing Papers."; Sarah Pruitt, "The Mystery of Nikola Tesla's Missing Files."; MuckRock, "FBI releases catalog of Nikola Tesla's writings seized after his death.".

What is not documented. That anything in the papers worked. The papers that matter most are not hidden at all. They are in a public museum.

What remains open. The difference between the roughly 80 trunks the FBI counted and the roughly 60 that a biographer says reached Belgrade, and the copies sent to Wright Field.[91]

Why this one keeps spreading. History.com notes that "John G. Trump was the uncle of the 45th U.S. president, Donald J. Trump." That family connection has drawn new attention to the story online. It does not change what his 1943 report said. **[Not verified]**: I did not find a source I could open that dates when online posts first linked the two.[92]

Verdict: The seizure is True. The cover-up of a working invention is False as far as the records go.

Legend 7: Tesla was erased from history

The claim. Edison, Morgan and the government worked to wipe Tesla from the record.

Evidence against. In his lifetime Tesla received the Edison Medal from his fellow engineers (voted 1916, presented 1917). Newspapers covered his birthday announcements across the country into the 1930s. The Supreme Court discussed his patent by name in 1943. A unit of physics was named for him in 1960. His papers fill a museum.[93]

What is true. His fame faded after his money ran out, and for decades after his death he was less known in America than Edison or Marconi. His fame came roaring back later in the 20th century. Neglect is not the same as erasure.

Verdict: False.

Legend 8: Tesla invented radar, X-rays, neon and the smartphone

Tesla gets credit online for almost every modern machine. Four of the most common are worth a closer look, because each has a grain of truth.

Radar. In August 1917, during the submarine war, The Electrical Experimenter printed an interview in which Tesla described a way to find ships. He said the ray "would necessarily have to have an oscillation wave length extremely short," that "the exploring ray could be flashed out intermittently," and that "the ray would be reflected" and made to light "a fluorescent screen (similar to the X-ray method)." The word radar does not appear. The idea is radar's basic idea, but Tesla was not first and he built nothing. On May 17, 1904, in Cologne, the German engineer Christian Hulsmeyer had already demonstrated a "Telemobiloskop" that detected a ship on the Rhine by reflected radio waves, and his patent was granted in 1906.[94]

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[91] Sarah Pruitt, "The Mystery of Nikola Tesla's Missing Files."; PBS, "The Missing Papers.".

[92] Sarah Pruitt, "The Mystery of Nikola Tesla's Missing Files.".

[93] Frederick Finch Strong, "Nikola Tesla Is Awarded the Edison Medal by A.I.E.E.."; Associated Press, "Tesla Claims New Death Ray Can Make Nation Impregnable."; United Press, "Nikola Tesla Reveals Many Discoveries On Birthday."; Supreme Court of the United States, "Marconi Wireless Telegraph Co. of America v. United States, 320 U.S. 1."; Wikipedia, "Tesla."; Nikola Tesla Museum, "Patents.".

[94] H. Winfield Secor, "Tesla's Views on Electricity and the War."; Joanna Goodrich, "How the Telemobiloskop Paved the Way for Modern Radar Systems.".

X-rays. Wilhelm Roentgen discovered X-rays on November 8, 1895, and read his first paper on them to the Physical-Medical Society of Wurzburg on December 28, 1895.[95] A 2008 article in the medical journal RadioGraphics says Tesla's own investigation began in 1894, prompted by unexplained damage to photographic plates in his lab, and that his New York lab burned on March 13, 1895, with much of his work lost. From March 1896 he published a series of X-ray articles in the Electrical Review. The same article says Tesla "gave Roentgen full credit for the finding."[96] So Tesla was an early X-ray experimenter, not the discoverer.

Neon and fluorescent lights. Tesla lit glass tubes with high-frequency currents in his 1891 lecture and at the 1893 Chicago fair.[97] The National High Magnetic Field Laboratory names Tesla and Daniel McFarlane Moore as "two of the earliest men to develop and sell primitive versions of the fluorescent lamp." Peter Cooper Hewitt's mercury-vapor lamp, Edmund Germer's work and a General Electric team under George Inman followed, and by 1938 General Electric had made the fluorescent lamp a practical product.[98] Neon was not even discovered until 1898. Georges Claude showed the first neon tube lights at the Paris Motor Show in 1910.[99]

The smartphone. This one holds up as a prediction. In a 1926 interview with John B. Kennedy in Collier's, Tesla said the instruments of the future "will be amazingly simple compared with our present telephone" and that "a man will be able to carry one in his vest pocket." He also said that "when wireless is perfectly applied the whole earth will be converted into a huge brain." Snopes confirms the quote is "correctly attributed to Tesla and to the year 1926."[100]

The car company. Tesla Motors was incorporated on July 1, 2003, by Martin Eberhard and Marc Tarpenning and was "named in honor of Nikola Tesla." Eberhard chose the name. Elon Musk was not an original founder; he has been with the company since 2004.[101] No source I found ties Tesla's family or estate to the company.

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[95] William B. Ashworth Jr., "Scientist of the Day.".

[96] Maja Hrabak, "Nikola Tesla and the Discovery of X-rays.".

[97] Nikola Tesla, "Experiments with Alternate Currents of Very High Frequency and Their Application to Methods of Artificial Illumination."; Atlas Obscura, "Tesla neon light invention at the World's Fair.".

[98] National High Magnetic Field Laboratory, "Fluorescent Lamps - 1934.".

[99] Atlas Obscura, "Tesla neon light invention at the World's Fair.".

[100] Snopes, "Did Nikola Tesla Describe Cell Phones in 1926?".

[101] Nancy Dunham, "10 Things You May Not Know About Tesla Motors.".

Chapter 13: Ten Famous Quotes: Real or Not?

Tesla quotes are everywhere: on posters, mugs, social media and in the opening lines of school reports. Some are real. Some have no source at all. Here is how I checked them. A quote counts as **Real** only if I opened the original publication or a reliable reprint of it. It counts as **Sourced, not opened** when a careful reference names a real original that I could not open myself. It counts as **No source found** when nobody has ever shown where Tesla said or wrote it.

#	Quote (short form)	Verdict	Where it comes from
1	"Be alone, that is the secret of invention; be alone, that is when ideas are born."	**Real**	New York Times interview by Orrin E. Dunlap Jr., April 8, 1934.
2	"Today's scientists have substituted mathematics for experiments…"	**Real**	Modern Mechanix and Inventions, July 1934, "Radio Power Will Revolutionize the World."
3	"A man will be able to carry one in his vest pocket."	**Real**	Collier's, January 30, 1926, interview by John B. Kennedy.
4	"When wireless is perfectly applied the whole earth will be converted into a huge brain."	**Real**	Same 1926 Collier's interview.
5	"The present is theirs; the future, for which I really worked, is mine."	**Sourced, not opened**	Wikiquote cites a 1927 interview by Dragislav L. Petkovic in the Belgrade paper Politika. It reaches English readers in translation.
6	"If Edison had a needle to find in a haystack…"	**Sourced, not opened**	Wikiquote cites the New York Times, October 19, 1931, the day after Edison died.
7	"If you only knew the magnificence of the 3, 6 and 9, then you would have a key to the universe."	**No source found**	Earliest traces are internet posts from about 2009 and 2010.
8	"If you want to find the secrets of the universe, think in terms of	**No source found**	Traced only to a secondhand story on a product sales page, not

#	Quote (short form)	Verdict	Where it comes from
	energy, frequency and vibration."		to anything Tesla wrote.
9	"The day science begins to study non-physical phenomena, it will make more progress in one decade than in all the previous centuries…"	**No source found**	No original has ever been named.
10	"My brain is only a receiver…"	**No source found**	Not in the source it is usually linked to.

The real ones

The four real quotes all come from interviews Tesla gave late in life, when reporters visited him on his birthdays and asked about the future. The "be alone" line comes from a long New York Times interview by Orrin E. Dunlap Jr. on April 8, 1934. Quote Investigator, which traces quotes to their first printing, found the exact wording there.[102] The line about mathematics is in a July 1934 magazine article told to the writer Alfred Albelli, where Tesla complained that "today's scientists have substituted mathematics for experiments."[103] The two vest-pocket and "huge brain" lines are in the 1926 Collier's interview covered in Chapter 12.[104]

Quotes 5 and 6 are likely genuine, but I could not open the 1927 Belgrade newspaper or the 1931 New York Times page myself, so I give them only as Wikiquote cites them. **[Not verified]**: I did not see either original.[105]

The made-up ones

The 3, 6 and 9 quote is the most shared Tesla line online, and it has no source. Truth or Fiction searched for it in 2021 and found its earliest traces in a blog post from December 2009 and a photo-site comment from around 2010, followed by quote sites in 2013 and a wave of TikTok and Facebook posts in 2020 and 2021. Its verdict: "neither has been credibly attributed to Nikola Tesla," covering this quote and the "energy, frequency and vibration" quote below.[106] No book, article, letter or patent of Tesla's from his

[102] Quote Investigator, "Be Alone, That Is the Secret of Invention; Be Alone, That Is When Ideas Are Born", October 6, 2021, updated March 20, 2025. Traces the line to Orrin E. Dunlap Jr., An Inventor's Seasoned Ideas, New York Times, April 8, 1934. https://quoteinvestigator.com/2021/10/06/invent-alone/. Accessed November 18, 2026.

[103] Nikola Tesla, as told to Alfred Albelli, Modern Mechanix and Inventions, "Radio Power Will Revolutionize the World", July 1934, pages 40-42 and 117-119. Text read on Tesla Universe. https://teslauniverse.com/nikola-tesla/articles/radio-power-will-revolutionize-world. Accessed November 18, 2026.

[104] Snopes, "Did Nikola Tesla Describe Cell Phones in 1926?".

[105] Wikiquote, "Nikola Tesla", undated. Used only for the original publications it cites for sourced quotes. https://en.wikiquote.org/wiki/Nikola_Tesla. Accessed November 18, 2026.

[106] Kim LaCapria, Truth or Fiction, "Nikola Tesla '369 Theory'", August 3, 2021. https://www.truthorfiction.com/nikola-tesla-369-theory/. Accessed November 18, 2026.

lifetime has been shown to contain it. It turns up with different wording from post to post, which is typical of a quote that grew online rather than one copied from print.

"Energy, frequency and vibration" has the same problem. One quote-tracking site traces it to a secondhand account of a private 1942 conversation, posted on a sales page for a product, with the earliest saved copy from 2006.[107] That is a story about Tesla told decades after he died, not something he wrote.

"Non-physical phenomena" and **"My brain is only a receiver"** are in the same group. The same quote-tracking site reports that no original has been named for the first, and that the second is not in the source it is usually tied to.[108] I searched for both and found no printing from Tesla's lifetime either. **[Not verified]**: absence of a source is hard to prove, so if an original turns up, these verdicts should change.

A fake interview. Some websites carry a long "1899 interview" with Tesla, which talks about light and the universe. The quote-tracking site calls it fabricated, because it argues against the idea of curved space, which did not exist until Einstein's work years later.[109]

How to check a Tesla quote yourself

1. **Ask for the original.** A real quote has a publication, a date and ideally a page. "Nikola Tesla" alone is not a source.
2. **Look for it in his lifetime.** Tesla died in 1943. If the earliest copy anyone can find is a website from the 2000s, be careful.
3. **Check the words.** Tesla wrote in long, formal sentences. A short motivational line that sounds like a poster is a warning sign, though not proof.
4. **Use the quote trackers.** Quote Investigator and Wikiquote's sourced and disputed lists are good places to start.

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[107] The Tesla Record (teslainfo.org), "Quotes Nikola Tesla never said", August 8, 2026. Author not named on the page; its search results are reported in this book as that site's own findings. https://teslainfo.org/quotes-nikola-tesla-never-said/. Accessed November 18, 2026.

[108] The Tesla Record, "Quotes Nikola Tesla never said.".

[109] The Tesla Record, "Quotes Nikola Tesla never said.".

Part Four: Looking Ahead

Chapter 14: What Is Still Worth Researching

Honoring Tesla does not mean believing every claim he made. It means doing what he did at his best: build it, measure it and let others check it. Here is my ranking of Tesla-inspired research, from most to least promising. It is my own judgment, based on the physics in Chapter 8, not a finding from a source.

Research area	My rating	Why
Short-range resonant wireless power	Very promising	Already in use in phone pads, toothbrushes and medical implants. The open questions are distance, efficiency and safety.
Wireless control of machines	Very promising, and largely done	The direct descendant of the 1898 boat: drones, robots and remote equipment.
Bladeless disk turbines and pumps	Promising for special jobs	Simple and tough. Worth testing for hard-to-pump fluids and small machines, not for big power plants.
A careful study of the Colorado Springs notebooks	Promising for history	The notebooks are published. Matching each dated entry to Tesla's later claims would settle several legends in this book.
Harvesting small amounts of energy from the environment	Useful for small devices	Sunlight, heat, vibration and radio signals can run tiny sensors. The power is small and must be measured honestly.
Sending power through the Earth or the upper air	Weak	Possible to test safely at small scale, but losses, safety and interference make a world power grid this way very unlikely.
Rebuilding the death ray or the "air-powered" car	Not worth it	There is no design to rebuild, and the car breaks the energy rule.

Five tests for any "new Tesla invention"

When someone online says they have rebuilt a lost Tesla device, ask five questions:

1. **Is the design published?** A full drawing and parts list, so others can check it.

2. **Where does the energy come from?** Every watt that comes out must be traced to a source going in, including any battery or nearby power line.
3. **Was it measured with proper meters?** Not just a glowing bulb in a video.
4. **Did someone else repeat it?** An independent team, with its own equipment.
5. **Is it useful?** Does it work at a cost, size and safety level that makes sense?

A device that passes all five is real progress. A device that fails the second question is not a lost invention.

Tesla and the next great inventions

My companion book in this series, The Next Ten: Fact Checking the Inventions Humanity Should Work On Next, looks at several technologies that Tesla dreamed about, including wireless charging and remote-controlled machines. The pattern there matches the one here. The ideas Tesla tied to working hardware and patents became real. The ideas that rested only on announcements did not.

Conclusion: The Real Tesla Is Enough

After going back through his patents, his own memoir, the Supreme Court record, the FBI file and the newspapers of his day, here is where I land.

What is well established. Nikola Tesla patented a practical alternating-current motor and power system in 1888 that, with the work of Westinghouse and many others, helped build the electric grid. He invented the Tesla coil. He demonstrated a radio-controlled boat in 1898, decades ahead of its time. His 1897 patent on tuned circuits was strong enough that the Supreme Court cited it against one of Marconi's patents in 1943. He held 112 United States patents and about 311 worldwide. His fellow engineers gave him their highest honor in 1917, and physics named a unit after him in 1960.

What is reasonable to infer. Tesla was a genius at seeing how electrical machines could work and at building them. He was also a promoter who needed money and attention, and from about 1899 on, his announcements grew far beyond what he could show. The trick photograph from Colorado Springs, the earthquake story told 40 years later, and the death ray described "only in general" all fit that pattern.

What remains unresolved. Exactly what Tesla measured at Colorado Springs; what happened to the trunks and copies that did not reach Belgrade; and how the Edison $50,000 story, the 200-lamp story and the Morgan meter quote first took their popular forms.

What the records contradict. That Tesla invented alternating current or radio by himself; that he held 700 or 800 patents; that he and Edison refused a shared Nobel Prize; that he built a car that ran on the air; and that the government hid a working super-weapon.

The real Tesla does not need the legends. A man who gave the world the induction motor, the Tesla coil and the first radio-controlled machine has earned his place without a death ray.

For readers who want to go deeper, the best book-length history I know of is W. Bernard Carlson's scholarly biography, and the most important primary source is Tesla's own "My Inventions," which is short, free online and well worth reading with the cautions in this book in mind.[110]

[110] W. Bernard Carlson, "Tesla: Inventor of the Electrical Age", Princeton, NJ: Princeton University Press, 2013. Recommended for further reading; not quoted in this book; Nikola Tesla, "My Inventions.".

Appendix A: Chronology

Date	Event	Source
July 10, 1856	Born in Smiljan, Austrian Empire (now Croatia)	Britannica; APS News
1880	Goes to Prague; does not complete a degree	Tesla, My Inventions
1881 to 1882	Works on the Budapest telephone system; later says he had the rotating-field idea in the City Park	Tesla, My Inventions
1882 to 1884	Works for an Edison lighting company in Paris and Strassburg	Tesla, My Inventions
1884	Sails to New York; works for Edison's company less than a year	Tesla, My Inventions
January 26, 1886	First U.S. patent, No. 334,823	Nikola Tesla Museum list
October 12, 1887	Files the application for the induction motor, No. 381,968	Google Patents
March 1888	Galileo Ferraris presents rotating-field paper in Turin	Wikipedia, citing the paper
May 1, 1888	Seven patents granted, including 381,968 and 382,280	Nikola Tesla Museum list
1888	Lecture to the American Institute of Electrical Engineers	Tesla, My Inventions
1888	Westinghouse acquires rights to the motor patents	Britannica; My Inventions
May 20, 1891	High-frequency lecture to the AIEE at Columbia College, New York	Tesla, lecture text
June 23, 1891	Tesla coil patent, No. 454,622	Nikola Tesla Museum list
1893	Westinghouse lights the Chicago World's Fair with AC	Britannica
Spring 1894	Mark Twain photographed in Tesla's lab	Century Magazine, April 1895
March 1895	Laboratory on South Fifth Avenue burns	Portland Daily Press, March 23, 1895
August 26, 1895	Adams power plant at Niagara begins operation	IEEE History Center
November 17, 1896	Niagara power first reaches Buffalo	Westinghouse Legacy
1898	Radio-controlled boat demonstrated	Tesla, My Inventions

Date	Event	Source
November 8, 1898	Remote-control patent, No. 613,809	Google Patents
December 1898	Scientific American calls his promises "rhetorical bombast"	The Times (Washington), December 27, 1898
May 1899 to January 1900	Colorado Springs experiments; notebooks June 1, 1899, to January 7, 1900	PBS; Colorado Springs Notes
March 20, 1900	Wireless transmission patent, No. 645,576	Google Patents
June 1900	"The Problem of Increasing Human Energy" in The Century Magazine	Wikimedia Commons records
March 1901	Morgan agrees to provide $150,000	Wikipedia, Smithsonian
September 1901	Construction begins at Wardenclyffe	Wikipedia
May 6, 1913	Turbine patent, No. 1,061,206	Google Patents
November 1915	False report of a shared Edison-Tesla Nobel Prize; corrected within days	Evening Star, November 6 and 14, 1915
December 13, 1916	Voted the Edison Medal; presented May 18, 1917	Electrical World, May 5, 1917
July 4 to September 1917	Wardenclyffe tower demolished	Wikipedia; American Physical Society
August 1917	Describes finding ships with a reflected short-wave ray	Electrical Experimenter, August 1917
February to October 1919	"My Inventions" published in the Electrical Experimenter	Tesla, My Inventions
January 30, 1926	Collier's interview predicts a wireless set "in his vest pocket"	Snopes
January 3, 1928	Last patents, Nos. 1,655,113 and 1,655,114 (aircraft)	Nikola Tesla Museum list
July 10, 1934	Announces "death ray" on 78th birthday	Evening Star, July 11, 1934
July 1935	Tells reporters he once started an earthquake	Waterbury Democrat, July 11, 1935
1937	His only Nobel nomination	Physics Today
January 7, 1943	Dies at the Hotel New Yorker, New York City	Britannica; APS News
January 9, 1943	Office of Alien Property seizes his belongings	FBI file

Date	Event	Source
June 21, 1943	Supreme Court decides the Marconi radio patent case	320 U.S. 1
1952	Papers sent to Belgrade	History.com; PBS
1960	The tesla named as a unit of measure	Wikipedia
1978	Colorado Springs notebooks published in Belgrade	Wikipedia
May 2013	Wardenclyffe site bought for a museum	American Physical Society
2018	FBI releases more of its Tesla file	MuckRock

Appendix B: Claims and Their Sources

#	Claim (short)	Verdict	Main sources
1	Invented the AC induction motor and polyphase system	True	Patents 381,968, 382,280; Museum list; Wikipedia on Ferraris
2	Invented alternating current	False	Patents (claims are improvements); Chapter 8
3	Motor idea in Budapest, 1882	Partly true	My Inventions, Part III
4	Edison's $50,000 promise	Partly true	My Inventions, Part IV
5	Invented the Tesla coil	True	Patent 454,622 (Museum list)
6	Radio-controlled boat, 1898	True	Patent 613,809; My Inventions, Part VI
7	Supreme Court ruled Tesla invented radio	False	320 U.S. 1
8	Patent 645,576 anticipated Marconi's tuning	True	320 U.S. 1; Patent 645,576
9	Marconi Nobel in 1911	False	Nobel Prize records (1909)
10	Refused a shared 1915 Nobel	False	Evening Star, Nov. 6 and 14, 1915; Physics Today
11	700 or 800 patents	False	Nikola Tesla Museum; Waterbury Democrat, 1935
12	200 lamps, 25 miles	Inconclusive	My Inventions, Part V; PBS; Wikipedia
13	Proved worldwide wireless power	False	My Inventions, Part V (claim only)
14	Blacked out Colorado Springs	Inconclusive	PBS; Wikipedia
15	Seated spark photo is real	Partly true	Wikimedia Commons record
16	Morgan's $150,000	True	Smithsonian; Wikipedia; My Inventions
17	Morgan's meter quote	Inconclusive, leaning False	My Inventions, Part V; Smithsonian; Wikipedia

#	Claim (short)	Verdict	Main sources
18	Government tore down Wardenclyffe	Inconclusive	American Physical Society; Wikipedia
19	Earthquake machine	Inconclusive	Waterbury Democrat, July 11, 1935; Patent 514,169
20	Working death ray	False	Evening Star, July 11, 1934; PBS (Trump report)
21	Air-powered electric car	False	Cosmos; Wikipedia
22	Papers seized	True	FBI file; PBS; History.com
23	Papers held a working secret device	False	PBS (Trump report); History.com
24	Some papers missing	Partly true	History.com; PBS
25	Discovered the Schumann resonance	Partly true	Price, Atmosphere (2016)
26	Invented radar	False	Electrical Experimenter, August 1917; IEEE Spectrum (Hulsmeyer, 1904)
27	Discovered X-rays before Roentgen	False	Linda Hall Library; RadioGraphics (2008)
28	Predicted the smartphone	True, as a prediction	Collier's, January 30, 1926, via Snopes
29	Invented fluorescent and neon lights	Partly true	1891 lecture; National MagLab; Atlas Obscura
30	Tesla's family started the car company	False	Mental Floss
Quotes	Ten famous quotes (Chapter 13)	4 Real, 2 Sourced not opened, 4 No source found	Quote Investigator; Modern Mechanix, 1934; Snopes; Wikiquote; Truth or Fiction; The Tesla Record

Appendix C: Full Source List

Every source cited in this book is listed here once, grouped by the five tiers explained in the Introduction. Sources were read on November 18, 2026.

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Appendix D: Picture Credits

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Charts in this book: Tesla's U.S. patents by year and his foreign patents by country (data: Nikola Tesla Museum patent list); patent counts in records versus retellings (data: Nikola Tesla Museum, Evening Star 1934, Waterbury Democrat 1935); three-phase currents (drawn from the standard equations); and the verdict count (Chapter 10).

[111] Wikimedia Commons, "File records for the photographs in this book.".

Appendix E: Plain-English Glossary

These are short, everyday definitions of the technical words used in this book. They are simplified on purpose.

Word	What it means
Alternating current (AC)	Electric current that keeps reversing direction, many times a second. Household power in the United States reverses 60 full cycles a second.
Direct current (DC)	Electric current that flows one way only, like the current from a battery.
Volt	The unit for electrical "push" or pressure. Higher voltage pushes current harder.
Ampere (amp)	The unit for how much current is flowing.
Watt	The unit for power: how fast energy is used or delivered. Volts times amps gives watts.
Frequency	How many times something repeats each second.
Hertz	One cycle per second. It is the unit of frequency.
Cycle	One complete back-and-forth swing of an alternating current or a wave.
Induction	Making a current flow in a wire by changing the magnetic field around it, with no direct connection.
Induction motor	A motor in which the turning part gets its current by induction, so it needs no brushes rubbing on it. Tesla's 1888 patents cover this kind of motor.
Rotating magnetic field	A magnetic field that turns in a circle, made by feeding alternating currents that are out of step into coils spaced around a motor. It is the key idea behind Tesla's motor.
Polyphase	Using two or more alternating currents that are out of step with each other.
Three-phase	The most common polyphase system: three currents, each one-third of a cycle behind the last. It is the world standard for power grids.
Transformer	A device that raises or lowers voltage by induction between two coils of wire.
Tesla coil	A resonant transformer that builds very high voltage at very high frequency, making long sparks.
Resonance	The way a system responds strongly when it is pushed at its own natural rhythm, like a child on a swing given well-timed pushes.

Word	What it means
Oscillator	A device that makes something swing back and forth at a steady rate, such as an electric current or a piston.
Condenser (capacitor)	A device that stores electric charge between two conductors kept apart by an insulator. Tesla's era called it a condenser.
Radio waves	Invisible waves of electric and magnetic energy that travel through space. Radio, television, phones and radar all use them.
Wavelength	The distance from one peak of a wave to the next. Higher frequency means shorter wavelength.
Wireless power	Sending electrical energy without wires. It works well over short distances, such as a phone charging pad, and loses most of its energy over long distances.
Schumann resonance	Natural very-low-frequency radio waves that ring around the whole Earth, between the ground and the upper atmosphere, kept going by lightning.
Tesla (unit)	The unit of magnetic flux density (how strong a magnetic field is), named after Tesla in 1960.
Patent	A government grant that gives an inventor the right to stop others from making or selling an invention for a set time, in exchange for publishing how it works.
Prior art	Earlier patents or publications that already describe an idea. In the 1943 radio case, Tesla's patent was prior art against part of Marconi's patent.
Primary source	A record made at the time by someone involved: a patent, a court ruling, a letter or a newspaper report from the day.
Double exposure	A photograph made by exposing the same plate twice, so two scenes appear in one picture.