

in 1848, a twenty five-year-old construction foreman named, Phineas Gage, won nationwide fame by way of a hole in his head. While working on a railroad project in Vermont, he experienced a severe brain injury when a three-foot-long, fourteen pound tamping iron is violently propelled threw his skull. Astonishingly, he lived to tell about it.

At the time of the accident, one of Gages duties was to set explosive charges to remove unwanted sections of large rocks. Typically, a long, narrow, hole was drilled into the rock which was then filled with gunpowder and ignited. Before lighting the fuse, the hole was topped off with sand and a three-foot-long, 1.25" diameter iron tamping rod was used to pack down the gunpowder. However on September 13, 1848 Gage was distracted momentarily while in the process of preparing a blast, and he neglected to add the protective barrier of sand. When he thrust the iron tamper into the hole in the rock, it created a spark. And the gunpowder was ignited.

The resulting explosion propelled the fourteen pound iron rod strait into the air with the force of a cannon, causing it to pass through Gage's skull in the process. It entered through the bottom of his left cheekbone and exited through the top of his head, then continued to fly in an arc across the sky; landing almost 100 feet behind him.



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his fellow railroad workers; who rushed over to see if there was a problem. found was Phineas Gage slumped on the ground with a hole through his skull, amazingly, the man was still alive and breathing. Even more amazingly, within moments his eyes were open and he was speaking to his fellow worker's. The injured gage was quickly loaded in to a cart, and transported back to his boarding house, some forty five minutes away.

When Dr John Martyn Harlow arrived Phineas was conscious and had a regular heartbeat, and both of his pupils reacted to light normally. He was reported to be "in full

possession of his reason, and free from pain". while he was recovering, the doctor noted some changes in the mans demeanor and personality. People who had known him before the accident described him as hard-working, responsible and popular with his workers, but after the traumatic injury, Phineas Gage was not the same man.

In regards to his patient, Dr.Harlow wrote

*Gage was fitful, irreverent, indulging at times in the grossest profanity (which was not previously his custom), manifesting but little deference for his fellows, impatient of restraint or advice when it conflict with his desires. his mind was radically changed, so decidedly that his friends and acquaintances said he was "no longer Gage".*

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Several months after the accident Gage felt strong enough to return to work yet due to his personality changes, his previous employers would not entrust him with the fourman position he had previously held. In the following years, he took various jobs caring for horses, driving stagecoaches and doing some farm work. He also briefly appeared at a museum in New York which was curated by the infamous P. T. Barnum, alongside the Tamping Iron which had impaled his brain.



Not much is known about his years after the injury, but eleven years after the accident, when he was aged thirty seven years, Gage began to experience epileptic seizures. He died several months later, on May 21 1860. His brain was not subjected to any medical examination at that time, but seven year's later his body was exhumed so that his skull might be studied. It has since been subjected too much scrutiny.

There is still some controversy over the extent of damage to Phineas' brain.In any case the damage caused by the accident was roughly equivalent to a frontal lobotomy