

= Charles Redheffer =

Charles Redheffer was an American inventor who claimed to have invented a perpetual motion machine . First appearing in Philadelphia , Redheffer exhibited his machine to the public , charging high prices for viewing . When he applied to the government for more money , a group of inspectors were sent to examine the machine . It was discovered the machine was actually powered by a device Redheffer claimed was powered by the machine .

Redheffer moved to New York City and set up a similar scam after rebuilding his machine . However , an engineer detected that it was a fake when he visited an exhibition by listening to its unsteady motions . He discovered that the machine was operated by a man using a crank in a room on the floor above . Redheffer returned to Philadelphia . He later claimed to have created another machine , but refused to demonstrate it to anyone . He managed to get a patent for his machine in 1820 , but after this his fate is unknown .

= = Personal life = =

Little has been recorded about Redheffer 's life , other than his connection to the hoax . According to one source , he was from Germantown in Philadelphia , but most sources simply state that he appeared in Philadelphia with his machine . Redheffer disappeared from public view after the discovery of the fraud , and his fate is unknown .

= = Appearance in Philadelphia = =

Charles Redheffer and his machine became well known in Philadelphia in 1812 . Redheffer claimed he had invented a perpetual motion machine and exhibited it in a house near the Schuylkill River in the outskirts of the city . He charged an admission fee of \$ 5 (some sources claim \$ 1) for men to view it ; depending on the source , women were admitted free or at a charge of \$ 1 . The machine caused a sensation , and Redheffer lobbied for funds to build a larger version .

On January 21 , 1813 , eight city commissioners visited Redheffer to inspect the machine . They had to do so through a barred window , as Redheffer was concerned anyone going near the machine might damage it . One of the inspectors , Nathan Sellers , was accompanied by his son Coleman , who noticed something odd about the gears . The machine itself was said to be powering a separate device through a series of gears and weights . Coleman noticed that the cogs were worn on the wrong side and suggested that the device was in fact powering the machine .

The elder Sellers was convinced the machine was a hoax . To validate his suspicions , he hired local engineer Isaiah Lukens to build a similar machine , using a hidden clockwork motor as a power source . They then arranged a demonstration of the machine to Redheffer , who was immediately convinced and offered to buy it . Meanwhile , Redheffer 's machine appeared in the Philadelphia Gazette . Civil engineer Charles Gobort offered to bet sums of money ranging from \$ 6 @, @ 000 to \$ 10 @, @ 000 that the machine was genuine , and that Redheffer had discovered perpetual motion .

= = Move to New York City = =

His ruse revealed , Redheffer immediately departed for New York City where he was still unknown . He changed his machine somewhat so that it could not be detected as easily , and he exhibited it as he had done in Philadelphia .

When mechanical engineer Robert Fulton went to see the machine , he noticed that the machine was unsteady as if someone would have powered it manually and irregularly with a crank . Fulton also detected that the sound was uneven , uncharacteristic of a machine 's motions . He announced the machine was a fraud , and challenged Redheffer exclaiming he would expose the secret power source , otherwise he would pay for all the damage he would cause . Redheffer agreed , so Fulton removed some boards from the wall alongside the machine and exposed a catgut cord that led to

the upper floor . Upstairs he found an old man who was turning a hand @-@ crank with one hand and eating bread with the other . Spectators realized they had been duped and destroyed the machine ; Redheffer fled the city .

= = Later appearances = =

Redheffer appears to have constructed another machine in 1816 , which he stated his intention to demonstrate to a group of men including the mayor and chief justice of Philadelphia . However , despite several meetings , Redheffer refused to demonstrate the machine to them .

On July 11 , 1820 , the U.S. Patent Office granted a patent to Charles Redheffer (or Charles Redheiffer) for a device listed as " machinery for the purpose of gaining power " . (Unfortunately , all patents up to 1836 were lost in the 1836 U.S. Patent Office fire . If recovered , it would be X @-@ Patent X3,215 .)