## Newman's Impossible Motor

The patent office does not believe that Joseph Newman has built a generator that is more than 100 percent efficient, but New Orleans does

At least one physicist in Louisiana swears that CBS News anchorman Dan Rather was smiling on 9 January when he reported that an inventor near New Orleans has built a generator that defies the second law of thermodynamics. Others did not see any smile. What they did see, to their surprise, was an earnest but fantastic news story that has been running on New Orleans' biggest television channel being repeated on the network news.

The story is about an inventor, a selfeducated Mississippian named Joseph Westley Newman. He was pleased with the CBS broadcast because it may help him in a fight with the U.S. Patent and Trademark Office, which has denied him a patent on the grounds that his latest invention "smacks of a perpetual motion machine," meaning that by definition it cannot do what is claimed. On 25 June, the U.S. District Court for the District of Columbia will hear a suit Newman has brought against the patent office arguing that his device does not aim at perpetual motion but converts mass to energy in a finite but very efficient manner. He simply wants a patent.

Newman's invention is hard to describe, partly because its behavior seems to be at odds with the laws of physics, and partly because the details are being kept secret while the litigation goes on. Newman says his own theory of magnetic fields that underlies the invention is "10,000 times more important" than the invention itself, which he built to demonstrate the concept. He claims to have discovered the mechanical principles of a gyroscopic particle of matter that orbits in a magnetic field much as an electron orbits in an atomic shell. Several readers of his theory say it is incomprehensible and would not get attention were it not for the illustrative devices. The patent Newman seeks is for an "Energy Generation System Having Higher Energy Output than Input." Those who have seen it say it is a crude direct current motor powered by a bank of lantern batteries with a heavy, rotating magnet at its center.

Readings of the machine's performance, like those of Dan Rather's expression, depend on the reader. As a result of the TV coverage, the people of New Orleans may be convinced that Newman has invented a simple device that produces more energy than it consumes and could end the world's energy squabbles if only an arrogant scientific community would pay attention. That is Newman's message. It has been taken up and broadcast in a sort of crusade by Garland Robinette, the evening news anchorman at the CBS affiliate in New Orleans, WWL-TV.

Last autumn Robinette aired an eightpart series on Newman's device, charging that jealous academics and frightened executives tried to stifle information about it. Robinette concedes that his intense coverage of Newman began on a slow news day when he was looking for a cute show-closer. He claims he was skeptical at first and saw Newman's invention as a curiosity. But the story soon



Inventor of the 100 percent efficient motor, as he appeared on New Orleans television.

grew into a "monster that I couldn't let go" when New Orleans viewers, facing a 200 percent increase in utility rates, demanded to know more. Furthermore, a Mississippi state energy official and a credible scientist had recently vouched for Newman's claims. Robinette says that since he began reporting on the invention, no one has come forward to rebut Newman. He challenges people to come "get this story off my back."

Newman has benefited from the television coverage and from several weighty endorsements. For example, the television station engineers backed him. Last year, Robinette dragged two reluctant engineers on WWL-TV's staff to Newman's garage in Lucedale, Mississippi, about  $2\frac{1}{2}$  hours from New Orleans. They were skeptics at first, but, after looking at oscilloscope readings and watching the machine recharge batteries, they agreed with their anchorman that the claims seemed valid.

Engineer Ralph Hartwell described the tests he ran. When he arrived at Newman's house, he connected some weak penlight batteries he had brought along to a small conventional motor in Newman's back yard. It was allowed to run until the batteries were drained of power, taking about 1 minute. He then moved the dead batteries over to the smallest of Newman's three demonstration motors, connected them as a power source, and started this motor spinning. It ran until it was time for the camera crew to leave, for something between 1 and 2 hours. Finally, the batteries were taken from Newman's machine back to the conventional motor and reconnected. This time the motor ran for about twice as long as before, around 3 minutes. Hartwell ran another experiment on a large device and concluded that it also appeared to generate more power than it used. Other measurements were taken with oscilloscopes and current meters, but these readings have been questioned. After signing a confidentiality pledge, Hartwell was allowed to examine the machine's inner wiring. He is certain that there is no hidden source of energy. Although he still feels uncomfortable about it, he says he could not disprove Newman's claim and would like to see a university run a controlled test.

Newman's key endorsement comes from Roger Hastings, a solid-state physicist for the Sperry Univac Company in Minneapolis. A colleague who knew him as a postdoc fellow at the University of Virginia says Hastings was regarded as an adventurous and excellent theorist. Hastings' brother, a screener of new ideas for Tonka Tovs, met Newman when he submitted an invention to Tonka. Although skeptical, Hastings (the physicist) was persuaded to make a trip to Lucedale. "I used to teach physics at North Dakota State University," says Hastings, "and we would get three or four people a year who had some kind of device that was going to save the world. I assumed that this was the same." Newman talked Hastings into flying down for a visit anyway. He returned five times, testing and retesting the motors, until he was satisfied that he had made no mistake. He eventually signed an affidavit describing the invention in detail and stating unequivocally that it runs at greater than 100 percent efficiency, producing more power than it consumes. "I'm sticking my neck out," he says, "because this is an important issue that should be resolved."

Endorsements such as this are essential for the credibility of the patent application. Although Newman has read the works of the great electrical thinkers Michael Faraday and James Clerk Maxwell, he is not proficient in math or physics.

Newman is collecting several more endorsements. He claims to have won the backing recently of, a German aerospace engineer and a liaison officer between the National Aeronautics and Space Administration (NASA) and the European space consortium. Gerald Miller, a mechanical engineer, student of advanced physics, and electrical industry consultant in California, has inspected the devices and says, "I saw things that I cannot explain in conventional terms." He found that the device produced more energy than it used, adding, "I am absolutely certain that there is no hidden energy source." Milton Everett, a mechanical engineer and director of the biomass program for the Mississippi department of energy and transportation, says, "I think Joe has discovered something the world is going to benefit from. It's not a perpetual motion machine; it converts mass to energy." Excluding investors, Newman claims to have about 27 such endorsers.

But there have been and continue to be prominent doubters. Oddly, TV anchorman Robinette has given little attention or credence to the only thorough analysis ever performed on Newman's device. It was arranged by Everett (before he became a full convert to Newman's cause) and was paid for by the Mississippi energy department. Two electrical engineers from Mississippi State University (MSU)-Karl Carlson and Donald Fitzgerald-tested one of Newman's devices last March. The conditions were unfavorable, because the motor kept breaking down every "couple of minutes," says Carlson, as a huge spark from the induction coil shorted out a switch on the commutator. Thus, while it was fairly easy to measure the power going in, it was not easy to tell what was coming out. Newman has built a smaller, less quirky motor since then.

The pattern on the oscilloscope at the output end of a cycle was difficult to read because as one observer says, the discharge spark appeared as "a bright flash" or "a mess" on the face of the screen. Newman sweeps this point aside as a quibble, saying it merely indicates his machine's tremendous power. The efficiency claimed for the device is anywhere from the impossible (slightly over 100 percent) to the fantastic (800 percent and up). A normal electric motor may be 80 percent efficient, Carlson says, and transformers are generally in the 90's. Carlson and Fitzgerald found that Newman's machine was between 55 and 76 percent efficient, based on their reading of the most favorable oscillograms.

They wrote that they found "an output which is definitely less than the input." However, they hedged by saying that it was impossible to measure the mechanical energy lost in the machine, which could affect the rating. They declined to call Newman's invention a breakthrough but reported that it was remarkably efficient given its "obviously crude configuration." In a standard tag line, they

> "I'm sticking my neck out," says one physicist who has come out on Newman's side, "because this is an important issue that should be resolved."

wrote that "further investigation is in order." Newman reads this qualified rejection as a qualified endorsement, explaining that when it comes to praising new discoveries, academics are mean. He speaks of Carlson and Fitzgerald with harsher adjectives.

The physics faculties of Loyola and Tulane Universities, both in New Orleans, have protested Robinette's reports. Daniel Purrington, Tulane's physics chairman, says: "We all dispute it. A number of us have told him [Robinette] we think what he's doing is irresponsible. I talked to him for about 2 hours about the principles involved." Carl Brans, a theorist at Loyola, wrote Robinette a two-page letter of protest. "It's just sensational journalism. In our opinion, it's not worth the cost" to try to take the measurements that would end the discussion.

David Keiffer, an experimental physicist at Loyola, along with another faculty member, offered to check Newman's device if he would bring it to the laboratory. (Newman's patent attorney is a physics graduate of Loyola.) But in the preliminary talks, Keiffer says, Newman insisted that he be present during the entire procedure. Then he and Keiffer got into an argument. Newman packed up and left, never to return. The Loyola physicists also sought to advise WWL-TV's engineers on testing the device, but this proved to be a touchy proposition, because WWL is owned by Loyola and was originally founded by Loyola's physics department. No one wanted the advice to be interpreted as pressure.

"I have a fairly good reputation here," Robinette says of his science reporting, "and this thing just has the potential to make me look like an absolute ignoramus. So I've tried desperately to get people to disprove this and all I've done so far is get more and more people who are convinced."

What about the negative conclusion reached by the MSU engineers? Robinette maintains (like Newman and Everett) that while the engineers were testing the machine, they agreed that it was producing more energy than it used. But "when they went back, they wrote a very ambiguous response that didn't say it didn't work and didn't say it did." Robinette mentions that the MSU engineers are retired, as though to diminish their reliability. He finds it "very surprising" that they never called to challenge his report, which gave the Newman-Everett version of events.

Some who might otherwise voice skepticism seem to sympathize with Newman because of the way the patent office rebuffed him. In court filings, the patent office concedes that Newman is correct that it rejected his claim without fully reading the documents he submitted; that his application was handled by an examiner-Donovan Duggan-who seems to specialize in rejecting perpetual motion machines; that Duggan said he would not allow a patent on Newman's device, no matter how much supportive evidence was submitted; that patent office officials never tested the Newman device for efficacy and refused to observe oscilloscope readings of its input and output; and, finally, that the office issued a patent in 1979 to a man named Howard Johnson for a perpetual motion machine that Johnson has since agreed is inoperable.

If there were an association of militant patent rejectees, Newman's battle with the patent office could be its rallying cause. But there is no such association. However, Newman has done reasonably well attracting attention by himself, especially in New Orleans. In a few months, he will get his day in court.

---ELIOT MARSHALL