

Mr. Jackson's Amazing, Mysterious Machine

Gear Technology's bimonthly aberration — gear trivia, humor, weirdness and oddments for the edification and amusement of our readers. Contributions are welcome.

In our never-ending quest to bring our readers information about the unusual, the unique and—dare we say it?—the bizarre, the Addendum Staff has traveled for this issue to the wilds of Darkest Tennessee and the Museum of Appalachia. This museum of Appalachian folk art, crafts and history is located in Norris, TN, about 16 miles north of Knoxville. Among the 250,000 items collected by the museum's founder, John Rice Irwin, is a "thing," a "contraption," an "*objet trouvé*"; to wit, Asa Jackson's mysterious machine.

Jackson family history and popular folk wisdom in Appalachia say that it's a perpetual motion machine and that it worked at one time, running longer than a month without stop. And perhaps it did. But you couldn't prove it by anyone now alive.

This problem is this: Its builder, Asa Jackson (1792–1870), a local farmer, was a very secretive man. He didn't write down any of his plans or instructions for the assembly of the device. Jackson family members say he hid the machine in a cave outside Murphreesboro during the Civil War to keep it out of the hands of both the Union Army and any poachers who might be casting lustful



Asa Jackson's perpetual motion machine.

eyes on his invention. When no one was in attendance on the machine, he took it apart so no one could figure out how the thing worked. Irwin suggests that he may have even built extra, dummy parts just to confuse the inappropriately curious. When Jackson died, the machine, but none of the instructions or plans for it, passed to his descendants.

And what was Farmer Jackson's motive for building such a machine? Family history suggests that he built it in response to a competition of some sort, perhaps sponsored by the federal government, that offered a million dollars—a powerful incentive even in 1998 dollars—to the person who could design a perpetual motion machine. Whatever the motive, it was enough to make the construction of the machine something of an obsession with Jackson. Apparently he neglected his farm and went into debt to work on it.

Irwin acquired Asa Jackson's machine from his great-great grandsons in 1994 and brought it to the museum. Engineers from up the road at the government Y-12 plant in Oak Ridge have devoted some of their spare time to studying Jackson's machine, videotaping it and its extra parts and experimenting with various ways to put it together. So far, they haven't even agreed on exactly how it's supposed to be assembled. And none of them has displayed the daring of Asa Jackson in suggesting that they've repealed the laws of physics or out-guessed the likes of Galileo and Sir Isaac Newton and found a perpetual motion machine. Still, they'd like to know exactly how it works.

One likely scenario is that weights powered the large wooden wheel (about 5 feet in diameter) much like a clock-works. As the wheel turned, it com-

It went "zip" when it moved,
And "pop" when it stopped,
And "whirrr" when it stood still.
I never knew just what it was,
And I guess I never will.

Tom Paxton, "The Marvelous Toy"
Cherry Lane Music, Inc., ASCAP

pressed springs, which when released, returned the weights to their original position, allowing the cycle to start all over again.

Whatever its original purpose or practicality, Jackson's machine is an amazing piece of construction. It is built entirely of wood, and all the connections and fasteners are also of wood, pegged into place in much the same manner as furniture of the period was made. All the parts, including the large toothed wheel, were hand-carved. Originally, the machine is believed to have hung in a frame some 25 feet square, but the frame has long since disappeared. Now it is on display in the Museum of Appalachia in one possible configuration.

Okay, all you reverse engineering fans, here's your challenge should you choose to accept it: Take the trip to Norris. Study the machine. See if you can figure out how it works. John Rice Irwin, Asa Jackson's family and a lot of curious engineers would be be delighted if you could. ⚙

For more information about The Museum of Appalachia, call 423-494-7680 or 423-494-0514.

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