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TRICENTENARY TALES

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Who Knoweth the Way of an Eagle?

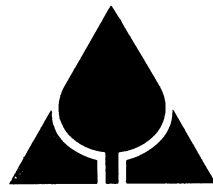
By John T. Cunningham

Outside the windows of the Perth Amboy Presbyterian Church an eagle soared lazily on the wind currents, rising and falling in slow circles with a grace far more understandable than the weighty words being pronounced by Rev. Josiah Andrews. Accordingly, on a morning in 1823 which he remembered forever, 17-year-old Solomon Andrews ignored his father's preaching.

Forty years later Solomon Andrews would write of that eagle-watching: "Suddenly I caught as with an electric shock the key to the whole system of aerial flight! From that moment my aim of life was fixed."

He must fly! He must make a balloon follow his demands rather than the whims of the wind. Solomon Andrews succeeded; in 1863 he became the first man ever to make a controlled flight.

As he watched the eagle, Andrews already was a skilled watch-maker, and six years later, at the age of 23, he became a



physician. Two generations in Perth Amboy depended on him to deliver babies, to fight yellow fever and to relieve the miseries of death.

He also assumed full civic responsibilities. He served for years as president of the local board of health, dispensed justice as justice of the peace, made laws as an alderman, sat in the mayor's chair for three terms and during President Tyler's administration was collector of the Port of Perth Amboy.

Such things as new babies and town problems never kept Dr. Andrews from tinkering, and Professor Joseph Henry, secretary of the Smithsonian Institute, eventually called him "one of the most ingenious and successful inventors in this country."

Andrews invented a machine that enabled only nine men to make 500 two-gallon kegs daily. He made and patented a sewing machine, forging presses, velocipedes, gas lamps, the first successful coal range, a system of converting oil into gas by the heat of its own flame, and combination locks. The locks won Dr. Andrews his first notoriety.

Versions of Dr. Andrews' tests of his "unpickable" lock vary, but in 1832 he placed \$1,000 in a chest, sealed it with his lock and chained it to a lamp post at the corner of Broad and Wall Street, New York. Anyone who wanted the \$1,000 could break the lock and help himself -- but for all the seekers there were no pickers.

Later Dr. Andrews perfected an unpickable lock for mail-sacks and in 1842 signed a contract with the U.S. Post Office to

supply all needs, a contract that he held for 30 years.

Always, nevertheless, that eagle flew through Dr. Andrews' dreams.

He tried in the early 1830's to interest balloonists in his understanding of flight, but they ignored him and continued to rise in their fat, round balloons and to fall wherever the restless winds deposited them.

He erected a huge "ship house" in Perth Amboy in 1849 and constructed an airship 80 feet long, 20 feet wide and 10 feet deep. He invited "the public" to view it on July 4 at 50 cents apiece -- and they came -- but Dr. Andrews never flew that first "Aereon" (a combination of aero and eon, "The age of air".) He destroyed it as unsuitable.

Babies and combination locks took over and the doctor laid aside his "Aereon" until the Civil War. Then, as a surgeon with the Sanitary Commission in Virginia, he witnessed what he called "the lamentable failure" of free-blown observation balloons.

The time had come for his controlled flight, to take observers "5 to 10 miles into Secessia and back again." Dr. Andrews wrote President Lincoln, received no reply, and beseiged legislators in Washington with his plans. They ignored him as just another eccentric.

There could be only one answer: Dr. Andrews must prove that he knew the secrets of the eagle.

He took to the air in Perth Amboy on September 4, 1863, in a strange ship comprised of three cigar-shaped balloons with

a 16-foot-long basket slung below. The shape, he felt, would make the craft behave much like a sail-boat on water and he devised a rudder on the back to steer the "Aereon". In the basket, weights could be shifted on a track to make the airship tilt up or down, thus increasing the gliding tendency.

Andrews sailed the "aereon" himself, although he had never been in a balloon and despite the fact that he was 57 years old. A newspaper reported the flight:

"She made 20 revolutions before she entered the upper strata of clouds. She passed through the first strata, about two miles high...and in her upward flight could be distinctly seen her rapid movement in contrary direction to the moving clouds. As she came before the wind, she passed them by with great celerity."

After a short flight Dr. Andrews descended successfully. He renewed his campaign on Washington's bureaucracy, with no significant success before war's end made his airship unnecessary for military use.

Dr. Andrews formed the "Aerial Navigation Company", to supply airship service between New York and Philadelphia, and on the morning of May 25, 1866, he took his last "Aereon" aloft from New York. She rose handsomely over the tall buildings and enthralled strollers in the city streets before she headed east over Long Island.

According to the New York Times, "the fair sex in their abstraction became oblivious of the fashionable swells; while

the gentlemen equally absent-minded played sad havoc with the hoops and various other appendages of the perambulating milliner's frames. It was nearly impossible to find a person who was not intently watching its movements."

Neither the "Aereon" nor Dr. Andrews ever went aloft again. Financial panic overtook the country, and a nation in love with terra firma needed an airship then as much as it needed seven league boots. Others would take up the flying -- and receive much of the credit which rightfully belongs to Dr. Andrews of Perth Amboy.

Life didn't cheat the doctor, however. He soared with the birds, and shortly before his death in 1872, he wrote that he could answer to his satisfaction the question:

"Who knoweth the way of an eagle in the air?"

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