Peace and War

Dave Ross took office for four years on the Lafayette City Council in January 1914. He also went right on running Ross Gear and Tool Company as its general manager, inventing things related to that job, and piling up salary and stock certificates.

As a City official Ross pushed for better pensions for Lafayette police and firemen, for improved fire protection, and for a stricter building code. It made sense to him for the City to merge three little old fire stations into one really modern, central building of brick and stone that housed the best trained men and the most modern equipment. He went out and walked smelly alleys and urged City minions on to better trash pickups. He campaigned for good sanitation and clean neighborhoods. “Few cities in the country have a greater per capita wealth than Lafayette,” Ross said. “Why not make this city beautiful?” (Kelly, Ross, 64).

The year 1913 had brought on the use of radio. Ross’s old Purdue professor, Reginald Fessenden, made the news. Radio was evolving from 1890s Italy and the inventions of Guglielmo Marconi (1874-1937). It would take nearly thirty years to become something all people could use, but that day was drawing nearer. Radio first had touched Lafayette in January 1903. Jeptha Crouch, owner of the Lafayette Stock Farm, received a message from his brother, George, who was aboard a trans-Atlantic ship en route to Europe to buy horses. George had arranged to beam that message to New York City by wireless then to Jeptha via the wires of Western Union telegraph, a linkage then known as “Marconigraph.”
Then in 1906, Professor Fessenden—long after his Purdue days—first sent human speech instead of dots and dashes from Brant Rock, Massachusetts, to ships in the Atlantic. Fessenden is believed to have conducted some of his early wireless research at Purdue in the Dave Ross 1890s days. Electrical engineers, in the meantime, had learned how to make vacuum tubes to send, hear, and amplify radio signals. These advances spurred the public sale of radio equipment and spare parts to hordes of eager hobbyists known the world over as hams.

Purdue electrical engineering ("double-E") professors Raymond Schatz and David Curtner built a transmitter and receiver for World War I U.S. Army trainees to use in 1918. The first day it worked Curtner sang “K-K-K-Katy” into the microphone and out into the airwaves. “Radiophone” sending and receiving kept making friends the world over after the war.

Double-E Professor Francis Harding persuaded Purdue to build and license a daily broadcasting station. The station could be an educational, news, and entertainment medium for the public, Harding believed, and could be a training lab for double-E majors.

By 1922, efforts involving Harding, Schatz, Curtner, and others led to Purdue starting Indiana’s first licensed radio station with the call letters WBAA. With twenty watts of power and its federal license dated April 4, WBAA debuted at nine p.m. on April 21, 1922 with a program about Arbor Day. The third floor of the double-E building housed the primitive studio.

Working as Ross Gear plant manager during 1915, Dave Ross collected patents for two steering gears and a steering arm. That fall there was a renewal of serious City Council talk about merging Lafayette and West Lafayette. Merger made management and economic sense to Dave Ross, but such talk came to nothing. There were not enough Dave Rosses.
In 1916, Ross obtained patents on a differential mechanism and three steering gear designs. In Europe, entire nations warred without America’s involvement. Yet on June 23, 1916, war nerves pushed artillery Battery C of the Indiana National Guard into girding for duty near the Mexico-Texas border. Lieutenant R. W. Levering of Lafayette commanded the one hundred eighty men. Purdue “just in case” started recruiting a Battery B for the National Guard. The men of Battery C left for Texas on July 7.

During the summer of 1916, the Ross Gear Board of Directors raised Dave Ross’s pay to two thousand dollars per month, the highest in the booming company.

For Ross, the money from factory salary, stock, and patents was piling up. His uncles had done well in real estate, and Dave saw the same opportunities. He wished to have some quiet “country place” to visit when stress in the city wore him down. He wished for land, woods, hills, and water. He found the right land for sale in Shelby Township along the Wabash River west-southwest of Lafayette. He bought fifty-nine acres from John Noll on December 27, 1916. Thirteen months later—January 30, 1918—he acquired one hundred eight adjoining acres from a seller named McKinsey. Ross’s hilltop place in Lafayette at 506 South Seventh Street became merely his winter home. The Shelby Township land contained level fields, woods, ravines, and a bluff-top view of the Wabash River. Ross called the place “The Hills” and on it chose where he could build a home.

As he began improving the ruggedly beautiful area his inventive nature again surfaced. Saying to heck with common sense, he built a barn on a steep hillside. Ross reasoned that one could drive a manure spreader under the windows on the low side and fill the spreader without having to do any lifting. Then to prevent erosion on a steep, curving driveway down to the river, Ross designed and installed V-shaped, concrete dams spaced twenty feet apart to divert storm water to an underground drain tile.
Ross turned architect for his three-story, twelve-room home at “The Hills.” He designed a fireplace with a copper hood that directed heat to parts of the upstairs instead of out the chimney. As the home took shape Ross invited friends out for the country air and his home cooking. Overnight guests learned certain quirks about Ross. He rose each day at 6:30 a.m. He loved having recorded music—later commercial radio music—going from the crack of dawn. He enjoyed card games and other entertainment. However, he was not to be disturbed if he retired to a workshop or drafting table where he might flesh out sudden brainstorms.

When he hired and moved a tenant-caretaker and his family to “The Hills,” Ross bought the caretaker’s children a Jersey cow if they would take care of it and learn to milk it. He joked: “Since I’m a bachelor I naturally understand children. There’s nothing so good for children as having regular daily duties. That’s one great advantage of bringing up kids in the country” (Kelly, Ross, 80).

Ross, in 1917, received patents for an electrical current generator and spark distributor and for a way to oil steering gear-rocker shafts in cars and trucks. He was perfecting amazing instincts and sensitivities to machinery, something like a doctor. He could watch a machine run and spot flaws; feel its vibrations and discern problems; hear it going and head off trouble; and even smell it and sense trouble with its bearings or ignition and know what to do.

In April 1917, as Congress voted the United States into World War I, Purdue urged its students to enlist in the army in return for credit for any courses they were taking. Readying for war included local meetings on food growing and military recruitment. Ten thousand people attended a downtown Lafayette parade on April 9. Recruiting rallies and war bond sales drives began.

On May 7, 1917, the Lafayette Journal reported a patriotic moment at the Ross Gear plant. The three hundred workers stopped making gears long enough to hoist a huge outdoor American flag. Curious Heath Street neighbors watched and listened. Two uni-
formed military men blew bugles. A nine-man rifle squad fired three rounds as the flag went up, opened, and flapped atop an eighty-foot pole. Dave Ross served as master of ceremonies. A Purdue professor described World War I as “a contest of force, brains and science for the freedom of mankind.” The work of the mechanic in preparing war materiel and of the farmer in producing food to feed the armies were as important, the speaker said, as the work of soldiers on the firing line. The speaker discussed the role of trucks, armored cars, and ambulances in modern warfare. Ross Gear workers’ hands were making the gears that were driving and steering many of them. A man sang “Old Glory.” Another rendered “Indiana.” Ross Gear decorated its factory floor with four-by-six-foot American flags and draped two larger ones over the plant entrance.

On November 6, Ross and his Democrat friends celebrated easy wins in the 1917 City elections. Former mayor Durgan, ousted by those Republicans-in-Citizens-clothing in 1913, won the job back and prepared to start his fourth term. Democrats won every other City office and all ten seats on the City Council. Dave Ross defeated Republican hardware dealer James Jamison by ninety-one votes in the Fifth Ward and took office for four more years. The Lafayette Courier commented that Ross “ranks among the city’s most substantial businessmen...His best recommendation is his record as a member of the City legislative body where he has always fought for the interests of the people” (Lafayette Courier, November 7, 1917).

Lafayette and Ross Gear were riding an uplifting wave of progress. In mid-February 1918, local contractor and Purdue alumnus Alva E. “Cap” Kemmer and his men began work on a ten-story limestone building. It would stand in downtown Lafayette at Third and Main for the fast-growing Lafayette Life Insurance Company. Next door to the east Will and Linn Ross financed construction for offices of a three-story stone Ross Building. It looked like the tall Life Building’s little-boy son.

At midnight on April 2, 1918, a state liquor prohibition law took effect. The law closed hundreds of Indiana package stores, saloons,
and breweries like the Thieme and Wagner and the George Bohrer plants in Lafayette.

Three weeks later, Purdue dedicated its Armory, and in it the next day began teaching automotive mechanic courses to five hundred Army men. In mid-June, the Lafayette City Council urged patriotic types to plant vegetable gardens to boost the wartime food supply. Citizens tilled and raked about four hundred acres into forty-five hundred private plots. Purdue’s School of Agriculture helped with seeds and advice about soil, planting, fertilizing, harvesting, and food preservation.

During 1918, Purdue housed, fed, and trained five thousand enlisted military men in technical courses. Twenty-five hundred students enrolled in the Student Army Training Corps. In the fall of 1918, the nation’s Fourth Liberty Loan bond drive set a goal of more than three million dollars’ worth of sales in Tippecanoe County. The success of the 1911 Purdue Alumni Association air show came to mind. Local backers of the war bond drive planned, on September 26, to procure four army planes from Indianapolis. The planes would “bomb” Lafayette. The pilots would drop bond-sale leaflets and land on a Purdue farm west of the campus. High wind and engine trouble cancelled the “bombing” stunt, but the county beat its bond sale goal anyway—by ninety-eight hundred dollars—on October 20.

During World War I, the Ross Gear plant turned out steering gears for military trucks. The company contracted with the U.S. War Department to cut, grind, polish, and ship a thousand gears for what the military called “Army Truck Type B.” Government and civilian business for Ross Gear also grew in wartime. The company Directors, in December 1918, rewarded Dave Ross with a
twenty-five percent raise. That brought his monthly pay to twenty-five hundred dollars.

At Purdue, the University dedicated the new Biology Building. On November 11, telegraph messages brought good news from France. An armistice had ended World I. Railroad locomotive whistles tooted in Lafayette. Church and school bells clanged. Factories closed for a day in celebration. Thousands cheered around Lafayette’s courthouse square. There were two parades with pounding drums.

But Dave Ross stayed at his drawing board. In 1919, the government granted him a patent for a machine that could cut internal threads in metal gears. At Ross Gear, he insisted on two policies:

1. Every key employee should have an understudy who can take the job.

2. It’s more important to get a job done than for anyone to get credit.

As business grew the factory became crowded. That is why Uncle Linn Ross, in 1919, presided over the start of Fairfield Manufacturing Company. The Fairfield men began making rear axle and transmission systems for heavy trucks in a corner of the Ross Gear plant. When a building became available two miles away on Earl Avenue, the Rosses moved Fairfield. There they started making gears that propelled both light and heavy trucks. The left-behind Ross Gear workers still focused on gears that helped drivers steer.

Purdue football had fallen into hard times. The school had fired Coach “Andy” Smith after his 1915 team won three of seven games. Coach Cleo O’Donnell fared no better. His teams in 1916 and 1917 won only five times. “Butch” Scanlon came on, and it took him
three seasons to win seven times. Sports-loving alumni grew restless.

During 1920, Dave Ross’s new patents included a steering gear design for Ross Gear in February and one for speed reducing transmission gearing for Fairfield in November. Business and other interests persuaded him to get out of Lafayette politics, but before leaving the City Council, Ross agreed to take one new job “for the public good.” He agreed to chair the Purdue Alumni Association committee, still struggling to get enough donations to build that Student Union on the West Lafayette campus. Purdue wanted to raise five hundred thousand dollars. The Class of 1911 had started the drive, but by 1917, the proceeds had grown to fewer than eighteen thousand dollars. In the patriotic air of World War I, Purdue shifted the purpose from Student Union to Memorial Union to honor Purdue’s World War I dead and dying. That helped a little.

Trouble is, when Ross joined the effort to get money and pledges from fellow alumni, some of them rich and famous, he met with a lot of whiners. “Give us a winning football team for a change,” they said, “and we’ll talk about giving money to Purdue.” They had a point, to which Ross had been paying little attention, but it made more sense the longer he pondered the issue. It had to do with Purdue Pride. Since 1911, Purdue had won thirty-one football games, lost thirty-two, and tied six. Not much of a fan of college sport, Ross now considered how to reply to the whiners.

Dave Ross, in 1921, enjoyed one of his most productive years ever for getting patents. In January, June, and October he received six—three for steering gears, one for a steering wheel design, others for a gear grinding machine, and a means of dressing grinding wheels.
Early that year the Purdue Alumni Association persuaded the Indiana General Assembly to amend state law so that the Alumni could recommend three of the Governor’s appointees to the Purdue Board of Trustees instead of one. Harry Leslie, now a member of the Indiana House of Representatives, helped pass the law. When the law took effect, fifty-year-old Dave Ross, on July 1, became the first Trustee to be appointed that way. Trustee membership also added a touch of clout to Ross’s fund-raising efforts for the Memorial Union.

The win-or-else mindset among alumni football fans clearly slowed fund-raising, but Ross reasoned, “If enough people say that about athletics our success is assured—we have something to talk to them about. Every one of them has stuck his head in a noose. We can shame them into doing their part” (Kelly, Ross, 69).

Before long, Ross was visiting rich alumni in big cities and laying a gently worded guilt trip on any who wanted to talk football:

> Look, you have had great success since you left Purdue. Is what you accomplished on account of football or other forms of training you got there? Surely you’re a big enough boy now to know that athletics isn’t everything. Shouldn’t you get out of knee pants? What about putting your name on this sheet of paper and make a decent pledge toward the Memorial Union? (Kelly, Ross, 69)

While Ross was at it, he also spoke his mind to certain other people in high places at Purdue. “It’s time we administrators, Trustees and alumni look ahead and think about land for dozens of new buildings that the university will need,” he said.

“Look ahead ten years?” someone asked.

“No, I mean fifty years,” Ross replied (Kelly, Ross, 70).

His Purdue colleagues began to recognize that this relative unknown—Dave Ross, Class of 1893—had “horse sense,” foresight, and the ability to get things done.
Ross visited Purdue alumni groups through the Midwest to present the Memorial Union plan and to solicit support. As a result of such efforts, alumni met their goal.

From his string of inventions, mostly for automotive gears, since 1906, Ross had earned a fortune, which grew yearly. But in 1921, he was starting to see ways to use his wealth to help Purdue. Yes, he came across as a folksy, amusing character from the country, but he voiced fresh ideas about education, farming, housing, and government. One idea was to use Purdue scientific research as a *teaching tool*. Let industry bring problems to Purdue. Let Purdue professors and students solve the problems and *teach* while students *learn* along the way. In that arena alone, Ross influenced American education, but his interests widened as Purdue’s own problems arose. His brilliance and vision blossomed in helping find solutions.

At Purdue, however, the summer of 1921 turned abruptly tragic. Since 1906, President Winthrop Stone had enjoyed mountain climbing. It had begun with a summer vacation trip to British Columbia. In the years that followed, he had joined various climbing clubs in the U.S. and Canada and scaled high peaks. World War I had pinned him in his Purdue office. However, in early July 1921, after a routine meeting with the Board of Trustees, Winthrop and his wife Margaret Stone left for a climbing vacation in the Banff region west of Calgary, Alberta.

On July 15, the two began to scale Mount Eon. That peak rose 10,860 feet along the Alberta-British Columbia border. At about six p.m. on Sunday, July 17, the Stones had struggled to within fifty feet of the top. Stone in the lead called down to warn Margaret of loose footing he had come upon in the rocks. She shouted back to inquire whether he was near the peak. “I see nothing higher,” he called.