Konstantin Konstantinovich Paluev

(1896-1958)

by Samuel Sass

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The presence of the General Electric Company in Pittsfield has, of course, been the leading factor in the economy of the Berkshires for close to a century. Ever since its predecessor, the Stanley Electrical Manufacturing Company, began operations in 1890 at its Clapp Avenue plant, GE has been the major employer in this area. This economic influence is readily perceived, but there has also been a more subtle influence on the social and cultural life of Pittsfield and the towns around it. Because the manufacture of complex electrical equipment requires experts in great variety of fields, the local GE plant has attracted scientists, engineers and other specialists, who have come not only from all parts of the United States but from a number of foreign nations as well. The result has been that Pittsfield's population is considerably more cosmopolitan than one might expect of a small city in the Berkshires.

Among the professional employees of overseas origin have been several Russians, most of whom had been on the losing side during the Russian revolution and found it expedient to go elsewhere when the Bolsheviks came to power. One, as a matter of fact, was a real live prince. Another had been an officer in the czar's navy. Yet another didn't have to flee his native land because he was already in the United States when the revolution against the Russian monarchy occurred. He was an engineer named Konstantin Konstantinovich Paluev.

Paluev, affectionately known as "Poly" to his co-workers, was lucky enough to be sent to America by his employer, the czarist army, a few months before the czar was deposed. He was here to inspect rifles. He was twenty-two years old and had just graduated from the Polytechnical Institute of Peter the Great in Petrograd, now Leningrad, when he was drafted into the Russian army during World War I. As an engineer, he was given additional training in munitions manufacture, and as an expert was sent to the United States in 1916. With a group of other experts his mission was to inspect two million rifles ordered by his government from American manufacturers. When the Russian revolution broke out in March, 1917, Paluev was still in the United States, and since the government which had sent him was no longer in power, he decided to remain here. Before long, he found a job with the General Electric Company in Schenectady and in 1919 he was assigned to the Transformer Division in Pittsfield, where he made his home until his death.

Paluev's contribution to the improvement of transformers was recognized not only by the company which employed him, but by the electrical industry world-wide. He published numerous technical papers, was responsible for about 100 inventions, and had 20 patents to his credit. Because he felt that the reliability of transformers had reached a point where failures of the equipment in service were practically negligible, he directed his efforts towards reducing their size, thus not only saving materials but also making them easier to ship. The result of his efforts was an hermetically sealed transformer with an innovative cooling system. It weighed half as much as a traditional transformer of the same rating, occupied half the space, and used only a quarter as much insulating liquid.

Paluev was always ready to share his ideas and knowledge with his colleagues and was looked to as an advisor and mentor by the younger engineers. He was always more supportive than critical of the latter when they appealed to him for help. To one of them, who asked for assistance in solving a difficult design problem, he wrote a lengthy letter containing several pages of technical explanation, and ended with the comment, "When you are in difficulties, remember that you are on the verge of a discovery or an invention."

There is no question about his distinction as an engineer, but what distinguished him as a citizen of Pittsfield was his interest and participation in community affairs, participation sufficient to earn him the annual civic award of the South Church Brotherhood. When he received that award in 1951, the citation read that he had been "chosen from all the residents of Pittsfield" because he had "served the common good in a most extraordinary way."

His activities covered a wide range of interests. He served as chairman of the Friends of the Berkshire Athenaeum. He was a member of the local Boy Scout Council and was especially active in its camping activities. As a strong supporter of the United Nations, he arranged for a two-week visit to the Scout camp, Camp Eagle, by a group of Scouts from the United Nations and a trip to the United Nations by 300 Berkshire Scouts.

Paluev was a great believer in the democratic process both as it related to his work and to his community activities. In 1941 he published in the *General Electric Review*, a paper entitled "How Collective Genius Contributes to Industrial Progress." Using examples of developments in transformer design at the local plant, he demonstrated that these developments were the result of group effort and that these groups represented a "collective genius" which he believed nature could never produce in one person. One successful project he showed to be the culmination of the effort of ninety people. This paper was reprinted in technical journals throughout the world and was translated into other languages. As many as 20,000 reprints were sent out in response to requests.

In an effort to apply this "collective genius" concept to social problems, Paluev organized what he called the Workshop for World Understanding. It was a forum for the discussion of current issues, national and international. A group of panelists discussed the particular question under consideration and a "reviewer" would attempt to arrive at a synthesis of the various opinions. "Poly" gave the appearance of being a mild-mannered man, but the obituary in the Berkshire Eagle contained the comment "…his personality usually turned out to be stronger and his opinions more forceful than those of his panelists."

One issue which was the subject of a Workshop meeting was the fluoridation of public water supplies and Paluev's vociferous opposition to that practice earned him a certain degree of notoriety outside the borders of Massachusetts. In the early 1950s there was a nation-wide campaign to add fluorides to water because studies had shown that this practice significantly reduced tooth decay. Advocates of fluoridation included the National Academy of Sciences, the American Association for the Advancement of Science, the U.S. Public Health Service, and the American Dental Association. Paluev joined the anti-fluoridation forces and, although he admitted that he was no expert on the dental or medical aspects of the issue, he based his opposition to the claim that the statistics used to prove the efficacy of fluoridation were not correct.

To support his case he testified at hearings before a committee of Congress, before the Committee on Health and Education of the New York City Council, and at legislative hearings in Boston. He also lectured on the subject and published two pamphlets at his own expense. One was entitled "Artificial Fluoridation, Layman's Dilemma," published in 1954, and the other, published in 1957, was entitled "Fluoridation – Utter Failure." How much influence Paluev's writing and speaking had outside of Pittsfield will never be known, but there is little question that in his home town he succeeded in further confusing an already confused public whose experience with fluorides had been limited to sodium fluoride as a rat poison. He managed to attract a following and succeeded in frightening

enough people who didn't understand either the medical or statistical arguments that Pittsfield never adopted fluoridation of its water supply.

I don't know that anyone ever asked Paluev, who died June 9, 1958 of a stroke, the question directly, but those of us who knew him wondered what happened to his doctrine of "collective genius."

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