

Frank L. Capps World-Wide Known Inventor

PIONEER IN RECORDING MACHINE AND PHONOGRAPH INDUSTRY

**Associated With
Thomas A. Edison;
Sent To Europe**

Now that Mount Pulaski is celebrating the 125th year of its founding (in 1836) by Jabez Capps and others coming from Springfield, this year of 1961, it is an appropriate time to tell the story of individuals who had gone out into the world and attained fame.

In this case it is the story of the life of Frank Lushbaugh Capps, as written by his daughter, Mrs. Isabel Capps Rainey, in New York City in 1941. The writer did not mention his boyhood days, so this information is given here before going into the story.

Born In Illiopolis

Frank Lushbaugh Capps was born July 28, 1869, in Illiopolis, Ill., a son of Charles R. and Elizabeth Lushbaugh Capps. The family moved to Mount Pulaski in 1872 and his first schooling was in the old Logan county court house building in the public square, now an Abraham Lincoln Memorial Shrine, owned and maintained by the State of Illinois. The family remained here until 1882, living on South Washington St., in the place known for many years as the Phinney property. They moved to Springfield where Frank attended high school, before beginning an active life in New York City and area, where he became widely known as the information following about him will tell.

Ashes Buried Here

He died in New York City, N. Y. on June 2, 1943, and his body was cremated in Brooklyn. The ashes were there until in October when they were received at the Schahl funeral home in Mount Pulaski on the 18th, the same day that his cousin, Donald Cameron Beidler, 58, died suddenly in Manhasset, Long Island, across the Sound from New York City.

While on a visit to Mount Pulaski with Mr. Beidler, the two men indicated they wanted to be buried in Mount Pulaski cemetery side by side in the old Beidler lot. Little did they think they would be buried the same day. The remains of Mr. Beidler arrived on Friday, and funeral services were held in the Schahl funeral home Sunday, Oct. 24, conducted by the Rev. Frank E. Neumeyer, pastor of the Methodist church. Following the commitment at the grave, a memorial service for Frank L. Capps was given by Rev. J. Wayne Staley, then pastor of the Mount Pulaski Christian church, who paid him a glowing tribute for his fine character and useful career as an inventor. Thus were the wishes of two men carried out.

Now for the story written by Mr. Capps' daughter.

Frank L. Capps, Inventor

Frank L. Capps is another former Mount Pulaskian whose inventive genius brought him national recognition and fame. His ashes are entombed in the Mount Pulaski Cemetery.

Mr. Capps was the son of John Capps, whose brother, Jabez Capps, founded Mount Pulaski. His mother, as a little girl, often sat upon the knee of Abraham Lincoln. In 1941 a radio broadcast was dedicated to Mr. Capps' marvelous career and as the inventor of the phonograph needle. The following life story was written by his daughter, Isabel Capps Rainey, in 1941:

For more than 40 years Frank Capps has contributed enormously to the field of sound and sound recording. His earlier inventions were major factors in the perfection of the phonograph, while his most recent one, a patented needle for instantaneous recordings has been a foundation stone in the building of a new and growing industry.

He is recognized today as an outstanding expert in the recording field, is labelled a genius by those who know him and yet he has never been given wide publicity. He never wanted it for that matter.

In the past few years, however, many people have wanted an article written about him. The demand comes not so much because of the specific things he has done as because of the outstanding personality that he is. This article is written in response to that demand, and I have chosen the title, "Frank L. Capps and His Lathe," because they had been so closely associated throughout Mr. Capps' entire career. In fact his lathe is as much a part of him as his powerful eyes and skilled hands.

He was 19 when his father gave him the lathe. His father was a fairly prosperous business man in Springfield, Ill., who knew that he would never succeed in making a storekeeper or real estate broker like himself, out of his son Frank.

Workshop Chief Interest

Frank, from his boyhood, had had just one consuming interest, his workshop. He would come home from school, do his chores, and immediately disappear into his bedroom. There he had tools and books, electricity, sound transmission and so on. So absorbed would he be "monkeying around", as he put it, that he would have to be called a dozen times to his supper and scolded later at night into blowing out his lamp and getting to sleep.

His bedroom was his first workshop, and only twice in all the years since has he been without a well-equipped shop in his own home, the two times when setting up in business for himself, he transferred his precious lathe to the business premises.

Frank was a quiet boy, rangy in build, shy in manner, and always devoted to his family. He was particularly proud of his mother, a remarkably energetic and intelligent woman whose lifelong hobby was collecting Lincolniana.

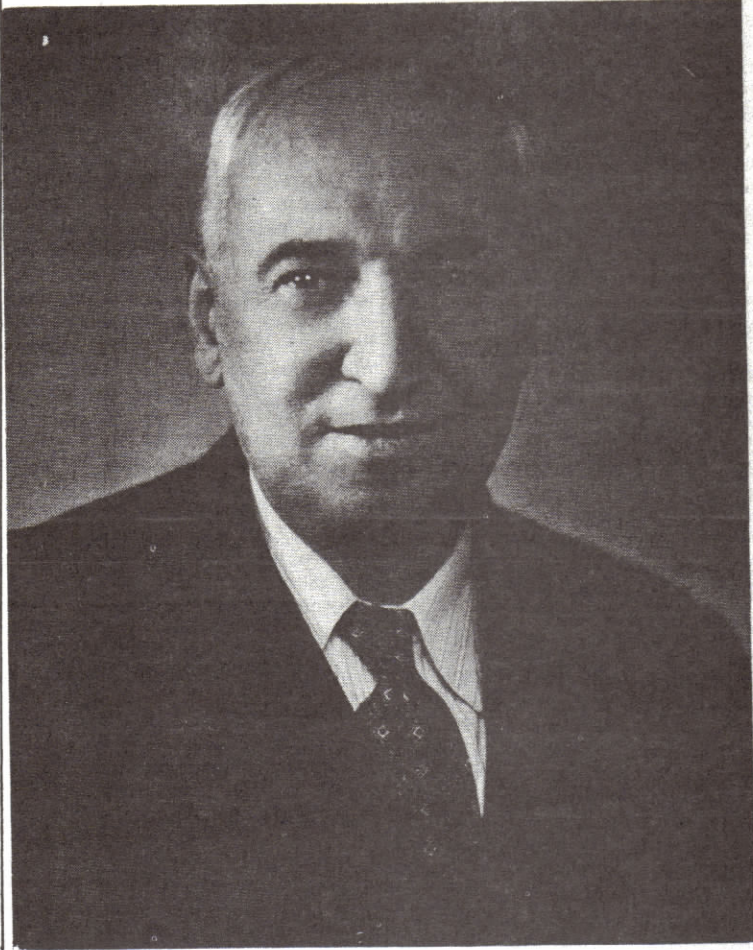
Her mother had been Lincoln's nearest neighbor in Springfield in her own childhood. She delighted in telling Frank, together with his two brothers and sisters, how she used to go over to Abraham Lincoln's house and climb up on the great man's knee; and how Lincoln would come across the street to her home to borrow coals to start his fire.

From her Frank inherited his remarkable vitality and energy. Even today he can outwork the youngest of his employees; a remarkable feat when one considers that he has always scorned vacations and for years has spent almost every night until the small hours of the morning, working in his laboratory at his home or in the shop. He also inherited his vigorous independence and splendid eyesight from her. In spite of the fact that he has been doing precision work for so many years, fashioning delicate little mechanisms too small for the naked eye to see, he seldom needs glasses today. His capacity for taking infinite pains with his work, his patience, his easy-going, tolerant good nature, and droll sense of humor he acquired from his father.

Frank's working career began at 17. He got a job then in the superintendent's office in a watch factory in Springfield, Ill. At 19 he was making the tools used by the watch-makers in the factory.

After work at night he would eat his dinner and disappear, as usual, into his workshop now removed to a more spacious place

FORMER MOUNT PULASKIAN ATTAINS FAME



FRANK CAPPS, noted inventor in the field of recording in the early days, and inventor of the power spring and sapphire needle for fine recordings, was a well-known pioneer in the industry.

in the cellar. His mind was beginning to produce original ideas and he probably talked a great deal to his father about them. At any rate, that was when the lathe was bought. In all his life, he says, he never received a present that thrilled him so much. Certainly no gift could have been more lastingly useful.

He was 19 when the Bell Company offered him a job as Trouble Man. He liked it well enough until the Boston office passed a ruling that the Trouble Man must go out and climb the poles whenever anything went wrong on the line.

Weather Bad: Quit Job

"I didn't mind climbing poles," he says, "but I didn't always like the weather. So I quit."

Invented Magnetic Principle

Two weeks later they called him back and asked him to go to Chicago and work in the Bell Research Department there. Their recalling him is not surprising because, young and relatively inexperienced as he was, it was while performing his daytime duties as trouble man that at night he invented and patented the magnetic principle now used for picking-up sound, the first important work he and his new lathe turned out. The magnetic principle is still used, of course in magnetic pickups.

Whether Capps was led into his work with the telephone company because of an interest in the whole field of sound, or found himself absorbed in it after his experience as trouble-man, I do not know. Musical talent was pronounced in his family, and while his sister Mabel, now Mrs. John Bretz, of Springfield, Ill., became a distinguished concert pianist, he seems to have resolved at this time to devote his talent and love of music to the instrument of sound, the phonograph. True there was a flute lying about in his workshop in those days. He admits, with a wry grin, that he sometimes enjoyed making horrible noises on it. But he evidently abandoned the idea of making music himself for the broader one of perfecting the instrument through which great music and great artists might be preserved.

Developed Phonograph

The phonograph industry was in its infancy at that time. It

was the day of wax cylinders, of enormous tin horns and of the expensive business of having to recall the artist to make an original recording whenever a second or third copy was desired.

Capps, still working in the Bell research laboratories, put his mind to work on this problem. Again he and his lathe went to work. The result was a duplicating machine that effectively eliminated this previously awkward and expensive process and made copies a simple matter.

Characteristically he did not attempt to make a fortune or seek publicity with his invention, although he undoubtedly could have.

"Didn't you patent it?" I asked him. "Oh yes," he replied, casually, almost disinterestedly. "But — didn't you make any money out of it?" I persisted.

"Well," said he, "the United States Phonograph Company in Newark offered me double the salary I was making with the telephone company if I would build duplicating machines for them. If you double your salary every once in a while you are doing all right, aren't you?"

After he had built the duplicating machine for Mr. Tewkesbury and his United States Phonograph Co., Capps decided to go into business for himself. He opened a shop in Newark, busying himself making phonograph parts, sapphire needles for wax recording, shaving knives and so on. His lathe, of course, went with him into his new shop and took part in the next invention.

Phonograph machines were at that time driven by storage batteries. Storage batteries, of course are fine when charged, but they do have an annoying habit of giving out at the wrong moment. So Mr. Capps conceived and built a motor driven by a spring and took it around to Mr. Tewkesbury for a demonstration. Mr. Tewkesbury was delighted. The United States Phonograph Co., I neglected to say, had the exclusive handling of all Thomas Edison's talking machine and record sales in addition to making recordings of their own. On seeing Capps' spring motor, Mr. Tewkesbury, therefore, naturally wanted to show the motor to Edison.

"I doubt if Edison will be in-

terested, though," he said. Nevertheless, he took it out to Edison's plant.

He said, "Mr. Edison, here is a new kind of motor that I want you to let me show you. It is driven by a spring and eliminates the need of storage batteries."

Mr. Edison replied that there was only one way to run a motor, by electricity; but agreed to look at it. "First, though," he said, "listen to a really good recording," and, turning to an assistant, he asked him to demonstrate a machine. The assistant went off only to come back and report that there was not a single charged battery in the place at that moment. This was Mr. Tewkesbury's opportunity.

"That's just what we're up against, Mr. Edison," he exclaimed. "People are constantly complaining because their machines fail when the batteries suddenly go dead. This motor does away with that."

Motor Solves Problem

So the Capps spring motor was demonstrated and Mr. Edison was immediately pleased. He got in touch with Capps at once and had him moved out to the Edison plant where for several months he supervised the building of his spring motors for Mr. Edison's talking machines.

However, he made no attempt to reap large sums from it and was pleased when The Columbia Phonograph company of Bridgeport, Conn., immediately called him there to supervise the building of machines for them.

The years 1901 and 1902 were spent perfecting the molds for the newly invented method of molding cylinder records, and the designing of recording machines and apparatus for disc records which were just being perfected. This was for The Columbia company.

Spent Year Abroad

In 1903 Columbia asked him to spend a year abroad making recordings for their European catalogue. With his wife, a charming and intelligent woman, and their two small children, he set out on this assignment with great excitement. It was a rich experience for it took him into every country in Europe and brought him into close contact with artists and technical men everywhere. He learned to speak a half dozen languages sufficiently well to make himself understood, and he and wife made friends wherever they went. They both possessed great personal magnetism, both were entirely free from artificiality and were so genuinely friendly, so interested in everyone and everything that they were extended an intimate hospitality denied the travelled.

One such experience proved more of an ordeal than a pleasure, however. He is reminded of it whenever anyone ask him to sample a special dish.

He will say, "It isn't raw fish, is it?" and then tell his story.

"Some people in Vienna wanted to give me a farewell dinner because I was leaving Vienna for Russia on the following day. Ordinarily the Viennese do not ask you to their home for dinner. When they have a guest they take him to a restaurant where cooking is on a par with home cooking anyway. Being invited into a home is a very special honor. Well, these people did invite me. They said they had a very special treat for me; wonderful dish; a great delicacy. I raved about it. You can imagine how I felt when the delicacy was set before me and turned out to be raw fish, seasoned of course, but raw fish just the same. Somehow I managed to eat it all because I did not want to hurt their feelings. As I ate they never took their eyes off my face, watching for the delighted expression they expected to see. When I managed to eat it all without betray-

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