Shorty Went Out for Air

Headed for Alaska, M. Elbert Mills, professor of civil engineering, came to Oklahoma instead because of a friend's chance conversation

By BILL GOODNER, '52ba

The old man hitched up his trousers and ran a searching hand over his bald pate. Attentively, the class watched him ease his frame onto the edge of his desk and stuff tobacco into the old smokestack he called a pipe.

"Well that reminds me," he said with his typical friendly growl, "of the time when I was designing the hangar on the North Campus."

The graduate students in structural design class of civil engineering smiled to each other; they knew they were in for a rare bit of entertainment. "Pappy Mills," a term bestowed with respect on the civil engineering professor by his students, was about to spin another classroom narrative. Mills fired up his smokestack and glanced out over his audience.

"It was during the war when they started the construction," he growled. "And everybody that could tell the difference between a hammer and a saw was hired out as a carpenter. One fellow was a bit smarter than the rest. He knew he didn't know anything about carpentering, so he decided to stay out of the way and not slow up the works.

"Everyday he'd report to the job and mosey over to where some men were working, watch awhile, then drift over to another group. He'd keep it up all day and nobody knew the difference with all the confusion. That was until one day this carpenter spotted someone following him."

Mills paused, fumbled in his pocket for a match to relight his pipe and shifted off the desk.

"'What you following me for,' the carpenter asked the other fellow," Mills continued. "The other fellow looked him over and said in a surprised tone. 'Why don't you know, I'm you're helper.'"

Repeatedly, Mills colors up his technical lectures with personal incidents, retold as plausible tall tales. They not only spark the class with interest, but usually point to a practical application.

The clanging bell, generally a release mechanism for most classes, is just a starter in Mills.' The students crowd up around "Pappy" like he was a visiting dignitary and start firing questions.

He'll massage his head, tamp his pipe, tug at his bow tie, that's as much a part of him as his graying mustache, and start arguing and explaining stresses and structures with the enthusiasm of a freshman. But he is well buttressed with 44 years of professional and teaching experience.

Mills is anxious for his students, and is as eager for them to learn the theories of indeterminate structures as an evangelist is to pass along the parables of the gospel.

Mills' zeal is carried over to, and voiced by, his students.

"That Mills, he sure is a corker," said one graduate student. And another hit the tone frequently expressed by Mills' pupils. "You couldn't select a better teacher for graduate work, any place, than under Mills."

M. Elbert Mills is his full name. He received a B. S. degree in civil engineering from Purdue in 1908. When asked how a Hoosier got transplanted in Soonerland, Mills rared back and laughed.

"You wouldn't believe it," he roared. "It was all because Shorty went out to taste the air. After graduation I had my sights on the Klondike. I wanted a travelling companion and talked Shorty, my cousin, into taking a trip. I was careful not to mention the Klondike, too, for I figured he might get cold feet and back out.

"We headed down to St. Louis to see the sights and then went over to Kansas City. It looked about the same as St. Louis. Then I talked Shorty into going up to Seattle. I figured, if I got him that far, I'd get him the rest of the way, somehow."

"We were all packed and ready to pull out the next day after spending the night in K. C. That evening, Shorty decides to go out of the hotel for a bit of air. While out, he ran into a booming Boomer from Oklahoma City and got converted to Oklahoma. And that's the way it was, just because Shorty stepped out to taste the air."

Mills, a registered professional enginer, began a general engineering career when he came to Oklahoma. He started out with railroad location and construction work over at Clinton in 1909 and did consultant work there in 1910, consisting of municipal engineering and land surveying. Later, he was office engineer in Oklahoma City and in 1914 worked as chief engineer for Truscon Steel Company.

He returned to his home town, Peru, Indiana, in 1917 and did flood prevention work there. In 1925 he switched to architectural and structural en-

gineering for Wyatt C. Headrick in Fort Worth, Texas. He started his teaching career at the University in 1927, having completed his professional civil engineering degree from Purdue in 1926.

Mills relates another yarn on how he became a professor.

"You can blame it on the women folk," he growled in good humor. "My wife and I were good friends of Mrs. Meacham and Ed (the late Dean Meacham). They asked me how I would like to come up to Norman and teach engineering. 'No,' I shouted back.

"Mama (as Mills refers to Mrs. Mills) didn't say a word about it when the Meachams were present, but after they left she said maybe I had made a mistake in refusing. She reminded me that we had some children to send through school and that would be a good way to do it. It all boiled down to Mrs. Meacham wanting Mama here, and they had to take me along in the bargain. Ed agreed to the scheme, and I came."

All five of Mills' children attended the University—Joe Mills, '37eng, Viola Juanita Mills, '34–'37, Roger Lewis Mills, '41 eng, (deceased); Vivian Lorae, '43eng, and Marian L. Mills, '34ba, (deceased).

Roger L. Mills, who lost his life during World War II, was recently honored by the University. One of the new men's dorms in Cross Center was dedicated in his honor.

Mills' professional handiwork in structural design is evident in the Biology Building, the Business Administration Building, some of the dorms, and the hangars out on the North Campus.

Mills' favorite pastime is tramping around in the outdoors. He is fond of guns and fishing. Some of his students rigged up a duck blind out on the Canadian River last year and Mills enjoyed a pretty good season. Wolf hunting has caught his fancy at the present. He hunts with a .32 Winchester equipped with telescopic sights. So far he hasn't had much luck, but lack of tallies hasn't discouraged his enthusiasm.

"I've got me a wolf call that sounds like a hurt rabbit," he said proudly, "and I've sent up to Utah to get some scent. I'll get one of them babies here pretty soon.

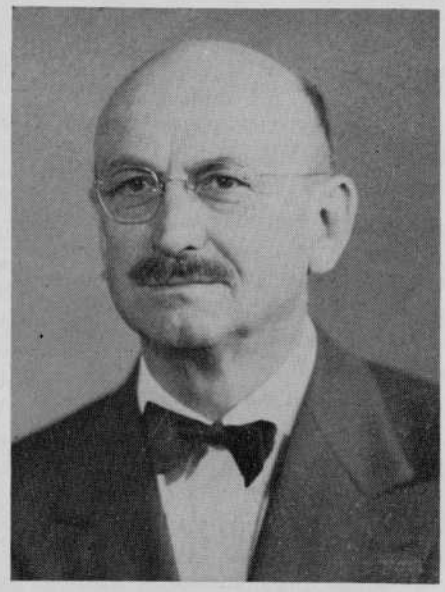
"Thought I was going to nail me a fox a little while back," Mills stated, settling back to tell the story. "I heard him barking in the woods, so I took in after him. When I got to where I thought he was, I heard him bark where I'd just come from," he laughed. "That fox had me running all over that 160 acres of woods. All he was doing was playing with me, but I got tired of playing and quit."

Mills has two main qualifications for a fisherman, the lack of which has thwarted men better skilled in the art of angling. He tells a fish story that's hard to match and has prevailed on his wife to always clean the catch.

"I'm not really a fisherman," Mills admits good naturedly, "But I'm trying to make one out of myself."

He reserves the remote sections in eastern Oklahoma for his favorite grounds. He was fishing on Mountain Fork, outside of Broken Arrow, one time and got so fascinated with the country that he kept walking down the river, criss-crossing it several times. The sun started down and Mills discovered he had only a few fish and less knowledge of where he had started. He finally worked his way back to camp before darkness settled in.

"Yes sir. Had a peach of a time," Mills expressed it. "Got lost and everything."



M. ELBERT MILLS
. . . Blame It on the Women Folk

Mills has fished a good deal out in Colorado for speckled trout, but prefers big mouth bass for a real tussle and he likes to hook them on a flyrod.

"I'd rather catch one fish on a flyrod," he said, "Than hook a half dozen any other way."

Mills' hobby of hunting and fishing ties right in with his pet subject—the field of statically indeterminate structures.

Formerly, one of his best fishing nooks was on a little creek that empties into Lake Texoma—a scenic well-timbered area, where Mills liked to get away from it all.

"It was a beautiful spot," Mills reminisced. "Then the highway department slapped an ugly old truss bridge across it and spoiled the whole thing. It was ideal for an arch bridge that would have been appealing to the eye. The arch bridge would have been worth more aesthetically and would have cost less."

The state is sponsoring a program to develop the eastern part of the state for tourist trade. The area is in the hinderland and will have to be opened up with new roads.

"And I'm interested in the kind of bridges they are going to put in there," Mills proclaimed. "They can ruin the whole effect if they start slapping gawky trusses across every creek. That will spoil the beauty—and the fishing holes."

The professor is candid in his opinions. With his friendly growl he violently objected to "Cluttering up a story with all this stuff I've told you. Leave me out," he asserted. "But I think the alumni should know what we are doing here. This statically indeterminate structure stuff is growing and we've got it going pretty good down here. If any of the alumni are interested, we'd be glad to have them come back and take some courses."

(The writer reasoned that if the students were allowed to hear Mills' classroom yarns, the alumni should be also. Mills is so homogenized with his subject it would be impossible to separate them. So I present both.)

The day is past when a man can go out and pose as an engineer, designing structures" by guess and by gosh." The rapid advances in all fields of technology has been tremendous and Mills works to keep his students in step with progress.

The students are instructed to design something better than mere platforms to serve as passageways. Keeping an eye on the economic and efficient side, they are prepared to design projects of aesthetic qualities that are pleasing to the eye and to the employers' pocketbook.

After a student has taken the graduate course in statically indeterminate structural work, he is adaptable enough to invade the fields of architectural and aeronautical engineering, and at a much better salary. All of Mills' students with graduate degrees start out at $60 to $100 more per month than those who are untrained in the indeterminate structure field.

Results of success are also shown by the increase in enrollment of graduate students interested in the work. Mills has won the co-operation of the Federal Highway Department and, last year, obtained Hugh P. Robinson, one of their experts on indeterminate structures, to teach night classes for one semester.

The State Highway Department also has taken notice and has paid the tuition

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Jr., Killingworth, Connecticut; Sammy LaRue, Clinton; and Price Starks, Oklahoma City, who died in the University dormitory fire in 1949.

Shorty Went Out . . .

of several of their men to attend the University for instruction in statically indeterminate structures. And the results can be seen in the overpass on the new road between Norman and Oklahoma City.

Although still functional in special instances, truss bridges are beginning to fade out and are gradually being replaced by the modern designed arch bridge and rigid frame. The only restraining governor, stopping the contemporary movement, is the lack of professional knowledge concerning these type of structures; Mills' courses are designed to accelerate the dispersal of the needed know-how.

To be able to present this modern trend to students, Mills had to evolve several new courses: Fundamental Theory of Statically Indeterminate Stress, Practical Problems in Highway Bridge Design (The Reinforced Concrete Arch), Advanced Statically Indeterminate Stress, Theoretical Stress Analysis of Building Frames, Practical Problems in Building Frames, and The Skewed Rigid Frame.

Keeping pace with the modern design trend, Joe Keely, '30eng, '46p.c.eng, chairman of the civil engineering department, has developed a graduate course for structural engineering in Soils and Substructure Analysis.

Mills is rated as one of the outstanding men in structural design in the Southwest and his efforts at the University have brought national acclaim.

Not only will O.U. civil engineers refrain from "spoiling good fishing holes with gawky trusses," but they will contribute to the economies of the communities they serve by being prepared to design structures that are easier on the eye, cheaper to build, and more efficiently designed.

Sooner Scene . . .

ron, '32ed, '36m.ed, and Mrs. Blanche Carleton Herron, '34, Blackwell; Dawson Houk, '14ba, '14bs, '21Law, and Mrs. Houk, Fairview; A. B. Imel, '14ba, and Mrs. Hazel Kelly Imel, '15-'16, Cushing, and O. W. Jones, '39m.ed, and Mrs. Cathryn Beckett Jones, '31, Tahlequah.

Also Dr. C. E. Lively, '30pharm, '30bs, '34bs in med, '34med, and Mrs. Lively, McAlester; R. L. March, '14, and Mrs. March, Duncan; Gen. Hal Muldrow, '28bus, and Mrs. Clara Bell Muldrow, '26, Norman; Errett Newby, '07mus, '08ba, and Mrs. Lola North Newby, '14ba, Oklahoma City; Sam W. Noble, '47ba, and Mrs. Mary Jane Curtis Noble, '46bus, Ardmore; Cecil Oakes, '25ba, '37m.ed, and Mrs. Oakes, Okemah; Sam Pangburn, '30, and Mrs. Verona Browning Pangburn, '30ba, Alva; J. R. Sommerfrucht, '34chem.eng, and Mrs. Sommerfrucht, Oklahoma City; Hugh Southwick, '21pharm, and Mrs. Southwick, Garber; Fred Tarman, '10ba, and Mrs. Tarman, Norman; Lee B. Thompson, '25ba, '27Law, and Mrs. Elaine Bizzell Thompson, '24, Oklahoma City; Barth Walker, '40geol, '40Law, and Mrs. Walker, Oklahoma City; T. E. Weirich, '22geol, and Mrs. Lela Smith Weirich, '22mus, Bartlesville, and Jess Wesner, '27Law, and Mrs. Wesner, Cordell.

Dean's Assignment . . .

clair Refining Company—Frederic N. Schneider, Jr. and Rudolph W. Buchwald, Jr.; Stanolind Oil and Gas Company—William R. Hise and Rex E. Cheek; Shell Oil Company—William G. Paulsell, William Earl Schlueter and Lejeune Wilson.

There is a slow but steady increase in enrolment of the engineering graduate program which is encouraging. I know many qualified seniors, who desire to do graduate work. However, of this number some have an obligation to fulfill with Uncle Sam, while others who are married or in debt decide it is time to be on their "own" and accept employment in industry.