

MAY WE PRESENT



JOHN STEPHENS
M.A., M.A.I., (Dublin) DSc.
Prof. of Mechanical Engineering
and Drawing

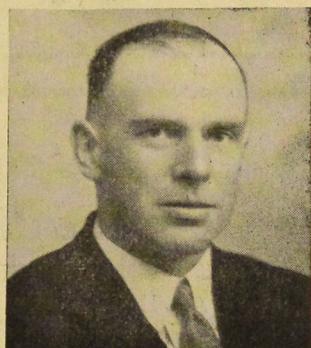
Dr. Stephens was born in Dublin, Ireland. He obtained his B.A., B. Eng., M.A., and M. Eng. at Dublin University and in 1912 became a member of the Institute of Civil Engineering of Ireland. Before coming to Canada he worked in the machine shop of Panhard and Levasser, London.

He came to the University of New Brunswick in 1907 as Assistant Professor of Engineering and is now Dean of Applied Sciences. He is a member of the Engineering Institute of Canada.

Dr. Stephens is an ardent follower of the international situation. During the First Great War he was a commissioned officer in the Second Siege Battery. He saw plenty of hard service and had several off the record experiences with the Australians. He returned in 1919 to take over his duties as Professor of Mechanical Engineering at the University.

His work, however, is not confined to the teaching of undergraduates, as he is regarded as one of the highest ranking consulting engineers in Canada. Due to his wide knowledge and experience in the field of engineering, he is doing a great deal to augment Canada's war effort in the production line. He has aided considerably in the development of hydro-electric and steam power in New Brunswick.

From all appearances, his chief hobbies are the operation and repairing of his trustworthy jalopy and the maintenance of his pet testing machine.



EARLE O. TURNER, S.B. DSc.
Professor of Civil Engineering

Dr. Turner was born at Harvard, Mass., and received his degree in engineering from M.I.T. Before he came to U.N.B. as a professor Dr. Turner had already been practicing his profession as Resident Engineer of the Massachusetts Highway Commission and later as an instructor of highway engineering at the Polytechnic Institute of Brooklyn. In the year 1917 Dr. Turner held the rank of second lieutenant in the air service of the United States Army.

Dr. Turner came to U.N.B. in 1919 and since that time he has been teaching the engineering students the mysteries of surveying, hydraulics, Highway Construction, and other subjects.

All the engineers know the precise computations that Dr. Turner puts on the board and are often puzzled when their own don't look as neat.

During the fall Dr. Turner is a familiar figure around the campus showing the sophs some of the ins and outs of handling instruments. He also looks after the Fall Engineering Camp for practical experience.

In 1940 our University conferred a very high honour upon Dr. Turner when he was granted the degree of Doctor of Science.

Not only in his own work has Dr. Turner been active but also in that of our Engineering society. Much of the present success of our Engineering Society Book Store is due to his help and advice.

In his leisure time, Dr. Turner has become a golfer of some note. He was the left handed champion of the New England States at one time and has always ranked high in golfing circles in this province.

FUNDY

Have you ever been down to Fundy,
Down to the rolling swell,
Have you seen the fogs of Fundy,
Have you heard the warning bell?

When deep fog horns are blowing,
And the spray is flying free,
As the waves roll in on Fundy,—
Have you ever longed for the sea?

There are ships that come to Fundy
That will take your heart away,
When they slip from Saint John Harbour
And head out down the Bay.

There's a smell of oil and oakum,
Of tar and fish and brine.
There's a warship in from Britain
And a sloop from Tormentine.

There are tankers, trawlers, schooners.
And a swarm of fishing smacks,
A corvette fresh from a convoy,
And a freighter from Halifax.

If you like big ships, and salt spray,
And a sea that's running high,—
You'll like the Bay of Fundy
When the storm flags start to fly.

—J. W. '42

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C. W. HALL

AND SO WE EAT

Soliloquy of a Bachelor
of Engineering Getting
His Breakfast

Well its 7 a.m., guess I'd better get me some breakfast. Lets see, what will it be? Hmmm, I see! Nothing to eat but one egg. Well, I always liked eggs when they weren't all smashed in getting them out of the shell. Lets see! How much pressure should I exert when cracking the egg in the pan. I guess I'll have to figure it out by means of that report on cylindrical shells by Witson & Atson. Now where in the name of livin' blue blazes did I put that X@%\$&'b" magazine. Gosh I'm hungry. Perhaps I can remember his conclusion without the article. Let's see. Oh yeah. "The shells subjected to combined axial and transverse loads developed approximately the same wrinkling stress as similar shells loaded as columns, longitudinal flexural stress resulting from the transverse load being included in computing the wrinkling stress due to a given load." Yeah, that's right because the transverse shearing stress is zero where the flexural stress is greatest and the flexural stress is zero where the shearing stress is greatest. Now his second conclusion was that, if the friction between the shell and the ring was reduced, the circumferential compression was increased in accordance with the analysis, assuming that the compression across the effective width varied as the ordinate of a parabola. Also for a given transverse shear, primary failure was caused by circumferential compression and not by wrinkling due to the diagonal compression resulting from the shear. The local deflection of the top and bottom of the shell was due directly to the circumferential compression and was very small until this compression exceeded the yield point. The deflection was not of the character of a flat plate. The action noted was in accordance with the flexural theory since deflection other than that produced by circumferential compression could not take place without producing a large vertical shear deformation at mid-depth of the shell and this portion being vertical, or nearly so, over a considerable depth was in a position to resist a large vertical shear with only a small shear deformation. Measured longitudinal strain in shells for which the primary failure was flexural were found to be in close agreement with values computed by the usual flexural formulae which exceed the yield point of the material slightly. The measured diagonal stress on 45 degree lines at the neutral axis were in accord with the strain computed by the general theory of flexure if proper allowances for Poisson's Ratio effect resulting from triaxial-stress conditions. Failure was due to circumferential flexure and a wide portion of the shell was effective in resisting the moment.

Fine! Now I can figure out just how hard I should hit that egg if I can only find my guess-stick. Let's see now, assuming the thickness of the shell, diameter of the egg, momentum of my hand, and allowing the other factors to balance each other, I should lift that egg just four inches above the pan and then hit hard. O. K.! Where's that egg? Here it is. Whoops! Well I'll be &'b@c!*&Xffed, I dropped it. Oh well, I never did like young chicken on the half shell. Guess I'll go down town and get some dinner. I can just make it if I hurry.

—P. W. B. '42

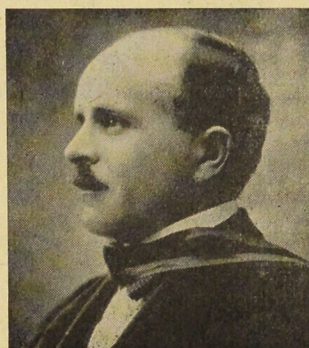
TECHNICAL NOTE

Grand Coulee, Wash.—Cooling of the 10,250,000 cubic yards of concrete which forms the structure of Grand Coulee dam would have required a century if the job had been left to natural radiation, engineers have estimated.

But they did the job in five years by circulating cold river water, through steel tubing installed as the concrete was poured.

The job required 2,000 miles of thin-walled one-inch pipe, two miles of 3½-foot inspection shafts, nearly six miles of other galleries and shafts and two large pump barges. Cost of all this has been estimated at \$1,400,000.

MAY WE PRESENT



A. F. BAIRD, M.Sc. DSc.
Professor of Electrical Engineering

Dr. Baird was born at Salmon Creek, Queen's County. He attended rural schools and obtained his high school education at Fredericton High School. Later he attended the University of New Brunswick where he received his B.Sc. degree.

From here he went to the Kansas State College to study two years post-graduate work and the following year he taught Physics there.

When in 1916 he returned to U. N. B. he first taught Physics and later on became Professor of Electrical Engineering. Dr. Baird received his Master of Science degree from U.N.B. and in 1940 this University bestowed the degree of Doctor of Science upon him.

He is one of the most energetic professors on the campus. Since the establishment here of a Radio Technician's course for the Air Force here is one man who has been forced to move on the double beat. Added to his many duties is the task of Air Raid Warden for the University.

His main hobbies are fishing, boating and carpenter work. He is an expert on Internal Combustion Engines and claims that at sixty-five he will become a member of the Fredericton Golf Club. His spare time is spent in repairing and regulating the Beaverbrook clock.

Being a prominent engineer, Dr. Baird is a member of the American Institute of Electrical Engineers and of the Engineering Institute of Canada.



J. H. MOORE, B.Sc., S.M. (M.I.T.)
Associate Prof of Civil Engineering

Professor Moore received his early education at Aberdeen High School in Moncton, N. B. He won a Beaverbrook Scholarship and came to the University of New Brunswick to study Civil Engineering. He received his B.Sc. degree in 1933 and was elected Life President of his graduating class. He then went to the Massachusetts Institute of Technology, where he finished a two year course in one year and earned his Master of Science degree in '34. He received the I. O. D. E. Overseas Scholarship for 1935 and went to Cambridge University, England, where he finished two years of research work. Throughout his studies he was an excellent scholar and made first division marks in all of his courses. In 1938 he returned to U.N.B. as Associate Professor of Civil Engineering. Professor Moore is a member of the Engineering Institute of Canada.

He was the engineer in charge of the construction of the New Lady Beaverbrook Gymnasium and at the present time is secretary of the Gym Committee.

Professor Moore takes an active part in the C.O.T.C. and this year is Quarter-Master of the U.N.B. Contingent of the C.O.T.C.

His chief hobbies are hunting and fishing, but he also finds time for the occasional game of badminton and tennis. His real hobby, however, is bullying the Silly Senior Civils for eight lectures and five afternoons per week.



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