

Alf Gawith's Story

ALFRED HENRY GAWITH, Materials Research Engineer of the Victorian Country Roads Board (CRB), retired on March 3, 1970.

Mr. Gawith was educated at Wesley College and the University of Melbourne, obtaining the Degree of Bachelor of Civil Engineering in 1930 and of Master of Civil Engineering in 1938. The subject of his 1938 thesis was "Testing for Materials for Road Construction" It presented the progress that had been achieved by the Board to that date when staff undertaking testing activities was just three engineers and one technician.

He was a Fellow of the Institution of Engineers, Australia.

In 1929, Mr. Gawith joined the CRB. as an assistant engineer with the duties of Testing Officer, progressing through the years to his position at retirement.

He devoted a lifetime to material testing and to research into innumerable aspects of road building. His work was not only been of great value to the CRB., but to Australia generally. It can safely be said that State road authorities, local government authorities and consulting engineers are currently making daily use of some aspects of his work.

Mr. Gawith could, in his retirement, feel that he had a rewarding career and had played his part, to no small degree, in the development of Australia.

Initially, Mr. Gawith was concerned with routine testing of gravel, screenings and bituminous materials and was involved in the early work done in introducing the plasticity index and other index tests for roadmaking gravels and soils.

Some of his later, outstanding achievements include:

- The introduction of the use of tests for absolute viscosity to define the consistency of tars and bituminous materials.
- The development of a mechanical aggregate loader that was widely used in sprayed sealing work.
- The introduction of the use of the California Bearing Ratio (CBR) test and the development of correlations between simple soil tests and the CBR value.
- The adaptation of the CBR design method to suit Victorian conditions.
- The devising of cone penetrometers for rapid determination of the CBR in the field.
- The introduction of the sand equivalent test to the work of the Country Roads Board.

In 1942, Mr. Gawith established a laboratory at Tennant Creek for testing gravel and bitumen used on the road from Alice Springs to Larrimah.

He was responsible for the basic design of the Country Roads Board Kew laboratory.

Mr. Gawith had been a Member of the Materials Research Committee of the National Association of Australian Road Authorities since its inception.

He had been a Chairman of the Committee (C.E.4) of the Standards Association of Australia, dealing with bituminous materials.

He had been a Member of committees of the Australian Road Research Board dealing with compaction and with bituminous materials.

In addition, he published a number of papers relating to road materials as follows:

- Measurement of the Consistency of Bituminous Materials. Issued in “The Commonwealth Engineer” in 1933.
- Some Phases of Road Research in Australia. Presented as Paper 605 Melbourne Division of IofE Aust before the Municipal Engineering Branch Meeting in June 1937.
- The Los Angeles Abrasion Test. Issued in “The Commonwealth Engineer” in 1937.
- Examination of the Subsoil of Roads. Presented at the Haig PIARC VIIIth Congress in 1938.
- Design of Concrete Mixes. Issued in “The Commonwealth Engineer” in 1938.
- Road-making Gravels. Issued as Paper 758 Melbourne Divison IofE Aust presented to Municipal Engineering Branch on 11 June 1941.
- Soil Compaction, Moisture, and Bearing Value. Issued in Vol XXVI of The Journal - Institution of Engineers Australia in 1946.
- Review of Road Research Overseas - Design of Flexible and Rigid Pavements and Soil Investigations. Issued “The Journal” Vol 18 – included in the Transactions of the Institution of Engineers Australia in 1950.
- Permeable Subbases Application to Winter Construction of Metropolitan Roads. Presented at the 1st ARRB Conference in 1962.
- Deep Sounding Cone Penetrometer. Presented to the 4th Australia New Zealand Conference on Soil Mechanics and Foundation Engineering 1962.

He was respected by those who worked with him particularly by those officers in the Materials Research Division. Alf died in 1994.

A memento of Alf was his Slide Rules shown in the photo.

