

CRUICKSHANK, Dr F.D.

- 000 1927 Student course
- 020 Prof. T.T.Flynn and other staff in Science Faculty.
Regular half-year absence of Prof. Flynn at Queens Univ.,
Belfast - an official arrangement under terms of appointment
as Ralston (?) professor
- 058 Professor McAulay Physics Dept
"very little research done in university as a whole" apart
from Flynn and McAulay
Deliberate building-up of research school by McA., despite
very small budget
- 071 Dr Philip Boden did beginnings of his research here - became
renowned worker at Cambridge thereafter
- 080 Electrolytic Zinc Co. for one year ~~xxxxxx~~ (1926) before going
to university. Drawings and figures for Boden's thesis done
by F.D.C.
- 115 Appointment as Senior Demonstrator in Physics (1930)-
typical of Prof. McA's way of acquiring staff. Authorities not
so keen on this method of acquiring staff from own student
body. But a homogeneous team built in this way.
- 145 1930- Physics Dept staff of two, plus one in workshop.
Budget of two hundred pounds. Details of improvisation.
- 190 F.D.C's experience of running the Physics Dept singlehanded
in 1932, owing to tragic personal experience of Prof. McA.
(2nd wife drowned in boating accident on honey moon) necess-
itating 12 months' leave.
Lecturing to 1st 2nd and 3rd years. Prof, McA's "lecture
notes"
- 255 1934 financial crisis in university. #Theuniversity had
many enemies in the community". Govt reduced grant.
Response of professorial staff to crisis: professors voted
that no one should be retrenched from teaching or adminis-
trative staff. Voluntary salary reductions of 20% for themselves
with graded reduction for other staff members. Professorial
800 pounds reduced to 640. F.D.C's salary reduced 10%
- 335 Research work being carried out by Physics Dept. Building
of glass house by staff and students - no other way of
achieving it, then.
- 430 Effect of war on researchwork. Telegram from Essington
Lewis, Director of Munitions, re optical project

Side B

- Telegram said /Aust. critically short of optical compo-
nents for gun sights. McA's telegram in reply: "Send one hundred
pounds and we will begin work."
Analysis of McA., who described himself as a "fast, rough
worker." An ideas man.
- 040 Role of Eric Waterworth
The development of the Optical Annexe
- 064 Formal laboratory work for 3rd year students scrapped, in
favour of problems relating to optical processes. Details
of work; tremendous speed of achievement
The laboratories were virtually factories
- 135 Expansion into new building (1941?) Battles and difficulties
re a building on university site for non-univ. purposes
2 shifts per day - 140 up to 200 workers - supervision by

- staff and students of physics dept
- 155 F.D.C.'s own workload: 7.30 a.m. first shift, then lecturing till 5p.m., then back to annexe until 11p.m.
- 180 McA's attempt to establish a 3rd shift failed - himself brought to verge of collapse
- 195 Optical Munitions Panel was established with members from all universities involved in optical instrument production. Decision taken that manufacture of aircraft camera lenses be undertaken at Melb. Univ. only. Prof McA. immediately - privately - started work, and after two months they had made a lens. Details of theoretical work involved.
- 335 Difficulties owing to limitations on types of glass available in Australia at the time
- 345 McA. goes to later meeting of panel in Melb. with the newly-produced lens in his pocket. Told at meeting that ship with 400 lenses for RAAF had been torpedoed; RAAF practically without lenses. Chairman ~~explained~~ emphasised urgency, McA produced lens from pocket - great moment!
- 395 Details of types of lenses produced
- 425 Publication of work after war when restraints lifted

Tape 2
Side A

- ?The arrival of H.A.Buchdahl (?) from Hay prison farm; seconded to Physics Dept. He had been educated in London, at school and university, but was interned as enemy alien. A brilliant theoretical physicist "once he had overcome effects of treatment and conditions at Hay".
- 065 re optical aberration expansion, and Buchdahl's solution to problems of 5th and seventh order terms. Published in 1954.
- 095 University should have offered him Chair in Theoretical Physics. He was "a loner and maybe a little impatient with shortcomings of students". Appointed to Chair of Theoretical Physics at A.N.U. F.D.C. unwilling to answer when asked why B. not offered Chair in Hobart.
- 155 In 1954 the Dept of Supply established an Optical Munitions group, basis of an industry to ensure that supplies would be available in any future war. Research money made available for training of students. Project of Optical Institute at Univ. of Tasmania, funded by Commonwealth. When plans were at last stage, almost finality, there was a change in govt policy and the project lapsed.
- 210 Advent of computer brought tremendous changes in this field. Example.
- 240 Smallness of university - close relations between staff and students. Tribute to Sir John Morris for "bringing university out of the doldrums"
- 260 Close-knit physics Dept, and until end of war all appointments were "from our own students". Students with problems "heard and helped on the spot".
- 300 Post-war development of study leave rendered isolation unimportant
- 335 F.D.C. in Physics Dept for forty years. Tribute to Lester McA for instinct in selecting people and building a

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department. A great fighter for his staff.
He was strong protagonist for Sandy Bay site. Physics Dept
first to arrive at site, in 1946

Side B 000 to 030 only