

Thursday, 27th August, 1970:

2.00 p.m. "SOLUTION OF PROBLEMS ARISING IN A RADIOTHERAPY DEPARTMENT
USING A CDC 6400 COMPUTER"

B.W. Worthley,
Physics Section, Anti-Cancer Foundation,
The University of Adelaide, S.A.

Three different fields of computer application have been studied, viz: data processing as for a neoplasm registry and personnel dosage recording, spectrum stripping for analysis of total body burden of gamma emitters, and X- and gamma-ray dosimetry. The bulk of the work has dealt with external beam, and internal sealed source therapy including the design of interstitial applicators and the reconstruction of implants from radiographs.

2.30 p.m. "AN AFTERLOADING SYSTEM FOR GYNAECOLOGICAL 'RADIUM' TREATMENT"

W.K. Jones and L. Mina
Department of Medical Physics, Royal Perth Hospital, W.A.

A description is given of an afterloading apparatus, locally designed and constructed, which is in use for the treatment of cancer of the cervix. The apparatus consists of uterine tubes and ovoid pairs with vinyl tube extensions about 18 inches long, and loading and storage devices. Caesium-137 sources are used attached to nylon push rods.

Dosimetry of typical source combinations calculated with the aid of a computer, is compared with experimental data measured by Thermoluminescent Dosimetry.

Dosage reduction to personnel involved in the treatment is discussed.