

3... The accommodability is lost, α is 1.

The result of the electrical test shows a C.R.D.

Treatment is carried out according to the findings of the test.

A normal motor-unit is treated with short impulses—0.1—1 ms. at 20 ms. interval. The result will be a tetanic contraction. The form of the impulse—square wave or triangular impulse—does not matter much in the short ranges. The current is either interrupted by means of a key electrode or surged. The patient should be told to contract with the current.

A partially degenerated motor-unit is treated according to the degree of its degeneration. Diagram 11 shows a partially degenerated motor-unit which has little accommodability α is 1.5. Therefore a triangular impulse must be chosen for treatment. The duration of the impulse must be somewhere between 50 and 500 ms. because the effective time of this motor-unit will be longer than normal. The interval duration of 2,000 ms. should be long enough for a partially degenerated motor-unit.

The advantages of this slowly rising impulse of long duration is that:

1. The stimulus can be localised to a great extent.
2. The patient can try to contract the muscle voluntarily with this slowly rising long impulse.

A muscle showing C.R.D.—Diagram 12—must be treated with triangular impulses of long duration, 150—600 ms. or more. The reasons are: the accommodability is lost, i.e. α is 1, therefore the triangular impulse is chosen. The effective time is very long—curve very much towards the right side. For the muscle shown in Diagram 12, a triangular impulse of \pm 500 ms. should be employed.

If it proves that the duration of the interval of 2,000 ms. is too short, i.e. the muscle shows signs of fatigue after a few contractions, a slowly rising galvanic current of preset rise and preset intensity should be applied. The current is manually interrupted. The duration of the interval can now be chosen, it can be any time. The best interval for a muscle showing C.R.D. would probably be 5 to 10 seconds.

BOOK REVIEW

Preliminary Electricity for the Physiotherapist by BRENDA SAVAGE, M.Sc., M.C.S.P. (Teachers' Certificates), 325 pp. 191 Figs. Published by Faber & Faber Ltd., 24, Russell Square, London. Price 21s. net.

Miss Brenda Savage has succeeded in writing a book which will be invaluable to the physiotherapy student. What few textbooks there are available on Medical Electricity are now badly in need of revision, and in any case do not seem to have their texts planned as specifically for the physiotherapist as is the text of this book.

There are three excellent preliminary chapters on the Nature of Electricity, Static Electricity and Current Electricity. These form the basis for the division of the book into three sections viz. low frequency currents, high frequency currents and radiations. The elementary physics is described clearly and simply, so as to provide an understanding for the chapters on electromechanics and machine construction. Most obsolete material has been eliminated, though there are one or two inclusions, such as the diathermy couch and diathermy massage, which seem a little out of place in a modern text book. The progressive or triangular wave form is not described, though it seems that this will be a valuable asset in the diagnosis, prognosis and treatment of nerve lesions. The physiological effects and uses of the apparatus are comparatively brief, but comprehensive, bearing in mind that this is a book for the preliminary physiotherapy examination.

Throughout there are ample and clear diagrams, invariably on the same page as the text to which they refer

a situation which is greatly appreciated after reading textbooks in which this is not always the case. The whole text is set out clearly and is easy to read, and we must look forward to an equally excellent book by Miss Savage on treatments by electrotherapy.

L.E.D.

GENERAL

The next Postgraduate course will be held at the University of the Witwatersrand Medical School on April 30th, in the evening, and on May 1st. The subject will be "Physiotherapy in Pre- and Post-Natal Care." We hope to include a film on childbirth, a lecture by a gynaecologist, a demonstration of classwork and one of the Neumann-Neurode method of infant exercises.

The timetable has not yet been finalised, but all interested postgraduates are asked to contact Miss Blair at the Medical School, or at the Johannesburg General Hospital.

The C.E.C. is still trying to obtain a final ruling from The Transvaal Provincial Administration regarding physiotherapists in the operating theatre.

A memorandum has been sent to the Minister of Health setting out the Society's difficulties, together with a request for an interview with the Minister.

An apology has been received and accepted from the Board of the S.A. Nursing Association for the publication of an advertisement in the S.A. Nursing Journal in November for the Lindstrom College of Swedish Massage.

CHANGE OF ADDRESS

Mrs. S. Patz has moved to 33a, Viljoen Street, Middelburg, Transvaal.

Miss A. I. Burr has changed her address to 182, 10th Avenue, Highlands North, Johannesburg.

Miss S. Oosthuizen's address is now P.O. Box 6468, Johannesburg.

BRANCH NEWS

Southern Transvaal

On Monday, January 11th, Dr. Henry Yellowlees gave a most amusing and fascinating lecture entitled "Word and Action." We were delighted to have this opportunity of hearing him before he returned to England. There were approximately seventy people present.

On February 22nd a Symposium on Paraplegia was held at the Johannesburg General Hospital. About eighty people were present at this very interesting and informative meeting, at which the speakers were Dr. H. Haden, Mr. A. Rothberg and Miss J. Maurice.

Dr. Haden gave an introductory talk on the pathology, different types of paraplegia and aims of treatment; Mr. Rothberg gave an excellent practical demonstration of the treatment, devoting the short time available to him chiefly to the methods of rehabilitation of walking for paraplegics. Miss Maurice talked to us about treatment of the paraplegic by occupational therapy while the patient is in hospital, and the vital question of his resettlement and vocational training after discharge.

It is hoped that in the future a meeting may be held in the W.N.L.A. centre in Johannesburg, where Mr. Rothberg has promised to provide some of his non-European patients, with whom he can give a fuller demonstration and explanation of treatment.