On the first of November Bernardus Brouwer died during a ceremony which was being held in the Cancer Institute at Amsterdam. An outstanding representative of European Neurology has gone from our midst. It should not be too difficult to outline his scientific activity for his was a clear and open mind and this fact found full expression in his work. A complete bibliography will appear shortly in the Folia Psychiatrica Neurologica et Neurochirurgica Neerlandica. In the present sketch the light is focussed on the figure of Brouwer as a neurologist of international reputation.

In his writings, which embrace more than 200 publications, we find, after a brief period of development, the complete display
of his •abilité. In the symphony of his life the exposition of the main themes is preceded only by a short prelude.

Brouwer was a pupil of Winkler. In the first and second decennia of this Century Dutch neurology was represented by a group of men who gave their lives to the study of this special branch. We may mention Winkler, Jelgersma, van Rijnberk, van Valkenburg and Dusser de Barenne. His doctor's thesis on the acoustic pathways in a case of deaf-mutism was largely an anatomical study. But speedily a deep interest in the functional significance of anatomical structures became apparent. Shortly after his "promotion" to doctor medicinae he studied under von Monakow in Zürich. In 1913 he was appointed assistant-director of the Central Institute for brain Research in Amsterdam, at that time conducted by Ariens Kappers. The rich coUeGtaa in this Institute opened to him the whole field of comparative neurology and embryology. Another source of mbiems and knowledge and one very dear to him. should be mentioned here, namely the neurological patient.

The history of his study of the visual pathways may serve to illustrate his work and his personality at the same time.

In 1915 Brouwer presented a case of bilateral hemianopia and discussed the possible localisation of the lesion in the visual radiation. In 1916 the anatomical report substantiated his assumptions. From that time on problems concerning localisation of visual function never left him. Even a few days before his death he had been puzzled by the conception of a cortical retina. In the beginning of this Century there was a sharp controversy between Henschen and von Monakow in which the former postulated a localised protection of the macula, whereas the latter held the point of view of a more diffuse representation. He approached the problem, aided by Professor W. P. C. Zeeman. Lesions made in the retina of rabbits, cats and monkeys gave insight into the representation of retinal quadrants in the lateral geniculate body. Corticallfesions furnished data on the spatial Organisation of the optic radiation between geniculate body and cortex. The Solution suggested was that the macula does have a localised but very wide cortical repie^ntali|m|6g

Another problem which held his attention for years was the Organisation of sensibility. As a präütraoner he met p’gfents suffering from syringomyelia, who exhibited the initial Symptoms of the disease shortly after (or caused by) a trauma. The subjeet was discussed by him in 1910. Five years later there appeared by his hand an exhaustive study on segmental Innervation in man. In this Brouwer combined the clinical, anatomical and phylogenetical aspects. He was the first to show, and that in a simple way, that the posterior columns, the carriers of "neo-sensibility", increase in relative size throughout the phylogenetic scale.

The predominating idea in the publications of these years is the theory that phylogenetically younger Systems and functions are more apt to be involved in ceSßain morbid processes. The assumption proved especially frurful in the study of the cerebellum. Using pathologiql and embryological material Brouwer arrived at the concltreLon that
the oral part of the inferior olive is connected with phylogenetically old cerebellar structures.

These studies revealed a subtle intelligence; they were written in a strictly scientific yet versatile style. They held the promise of a brilliant career.

In 1923 — when he was 43 year old — Brouwer succeeded Wertheim Salomonson and filled the Chair of Neurology at the University of Amsterdam. The observations gathered in the wards were laid down in a series of papers devoted to clinical neurology. We find carefully prepared case histories and well-balanced discussions in which a vast knowledge of current and early literature was displayed. His contributions to the "Nederlandsch Leerboek voor Zenuwziekten", edited in collaboration with L. Bouman, are still up to date and highly instructive for the student of neurology.

From the very first Brouwer's work attracted attention in wide circles. In 1926 he was invited to visit the United States. He delivered the Herter lectures at Baltimore and the Harvey lecture at New York. He made acquaintance with the main centres of American Neurology the results of which have been of inestimable benefit to his countrymen. The accomplishments of American Neurosurgery strengthened his conviction that the neurologist and the patient should no longer be deprived of the advantages of neurosurgery. Three years later a neurological clinic was opened in Amsterdam equipped with a neurosurgical department under the direction of a neurosurgeon trained in the United States by Dr. Cushing. It is characteristic of the state of affairs in Europe, that Brouwer — the neurologist — supervised both. And it is characteristic of Brouwer that, twenty years later, he advocated the independance of neurosurgery, his "pet project". The Organisation of the clinic was model to the Continent of Europe.

In the years following, this centre of neurological and neurosurgical activity satisfied many workers in Holland, as Professor Conelia de Lange and Professor de Kleyn, also from the Continent and from the United States. The subjects studied were for a part the elaboration of previous work. As new subject we may mention the paper read before the meeting of the Royal Society of Medicine: "The Spleen, the Liver and the Brain (1936) and a series of micro-anatomical studies on hypothalamic disorders (1939–1949). The latter contain a complete survey of the literature and an original study of 15 cases of hypothalamic disorders with careful anatomical control. It is a masterpiece of micro-anatomical investigation. There is one subject which is difficult to place in the chronicle of his life. Namely three cases of acute cerebellar degeneration combined with sarcoma in the pelvic organs. The first was described in 1919, the toxic origin was merely suggested. The
second (1935) was studied by Dr. Kennard. This time similar cases were mentioned, yet the toxic origin was not stressed. The third case, published together with Schlesinger in 1947, convinced him of the real toxic cause of the disease. Brouwer's notions had often been right; it was so in this case; it was nearly always so in his clinical work; it may prove to be so in his outlook on the future of neurology, a subject he dealt with in October 1949, one month before his death.

Brouwer exerted himself to stimulate scientific intercourse. Between 1910 and 1920 he contributed much to the revival of the Amsterdam Neurological Society. In his publications and lectures he referred by preference to his compatriots and to his collaborators. The poise of his mind and his "bonhomnie" made him an able adjudicator in matters of various nature. Had he not been in his younger days a popular referee in football matches?

He merited all the honorary distributions bestowed upon him. He was elected a member of the Koninklijke Nederlandsche Akademie voor Wetenschappen of Amsterdam in 1926 and was decorated by the Dutch Government in 1932. Neurological societies of France, the United States, Germany, Estonia, England, Hungary, Sweden, Switzerland elected him a corresponding, ordinary or honorary member.

Brouwer was the head of the neurological clinic until 1946. In 1947, after the death of Ariens Kappers, he was appointed director of the Central Institute for Brain Research, returning thus to a place he left in 1923. The regular flow of publications continued. He delivered addresses in England and in Switzerland at the end of 1948 and in the beginning of 1949. Paris saw him as a guest at the International Neurological Congress, where he addressed the opening Session and where his friends from other countries met him for the last time.

There is little reason to dwell upon his personal character because his work and his life were evidence of the man. Suffice to say that Brouwer was a man of "simple truth" as in the time of Shakespeare often "miscalled simpbcity".

T. The harmony and consistency of his personaHty guided by strongbut never disintegrating emotion is expressed in what he left behind: his writings a modern clinic and the seal of paternal friendship in the hearts of his pupils. J. Droogleever Fortuyn Amsterdam.