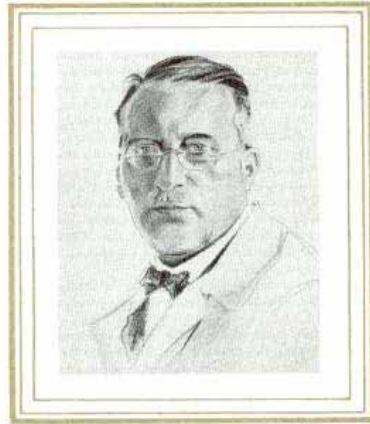


In 1977, this work has won the award of:



Konrad Biesalski
**Die DEUTSCHE GESELLSCHAFT
FÜR ORTHOPÄDIE UND
TRAUMATOLOGIE**
verleiht auf Beschluß ihres Vorstandes den
KONRAD-BIESALSKI-PREIS
Herrn
Dr. Ing. Manfred Nietert
in Anerkennung
seiner wissenschaftlichen Leistung
Würzburg, den 13. September 1977

Prof. Dr. Rütt
Präsident
Prof. Dr. H. Breitenfelder
Erster Schriftführer



[After a board decision the German Society for Orthopedics and Traumatology presents the Konrad-Biesalski-Award to Dr.-Ing. Manfred Nietert in recognition of his scientific achievements. Würzburg, September 13th 1977, Prof. Dr. Rütt (president), Prof. Dr. Breitenfelder (first secretary)]

Preface for this edition

This study was carried out as a thesis in 1975 at the Technische Universität Berlin [Berlin University of Technology]. However it is not widely known in the Anglo-Saxon room. In the meantime the results of this work are often quoted and the "position of the compromise pivot axis of the knee joint according to Nietert" serves many manufacturers as a basis for alignment guides of artificial limbs of the lower extremities and knee-ankle-foot orthoses, and also for hinged side-steels or bilateral long-leg braces.

This study has been originally published in German as:

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by Dipl.-Ing. Manfred Nietert from Berlin

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Berichte aus der Medizin

Manfred Nietert

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Studies of the Kinematics of the Human Knee Joint
in Regard to their Approximation in Prosthetics

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To my wife

PREFACE

This dissertation evolved during my work as research assistant at the *Institut für Feinwerktechnik und Biomedizinische Technik mit Prüfstelle für orthopädische Hilfsmittel der Technischen Universität Berlin* [institute for precision engineering and bioengineering with testing centre for orthopaedic aids] and was supported by the *Bundesministerium für Arbeit und Sozialordnung* [German Federal Ministry for Labour and Social Affairs].

I would like to thank the director of the research area *Biomedizinische Technik* and of the *Prüfstelle für orthopädische Hilfsmittel*, Professor Dr.-Ing. Boenick, for allowing me to work on this project and for his support.

Thanks also to the director of the *Orthopädische Klinik und Poliklinik der Universität Köln* [University of Cologne hospital and polyclinic for orthopaedics], Professor Dr. med. Imhäuser, for his interest in this work and the suggestions that resulted from this.

Special thanks to Dr. med. Schwörer, *Klinikum Steglitz der Freien Universität Berlin* [Free University of Berlin Steglitz hospital], and Professor Dr. med. Dotzauer, *Institut für gerichtliche Medizin der Universität Köln* [University of Cologne institute for forensics], and their colleagues who were most helpful during the preparation of the many X-rays.

I am also thankful to all staff members of the research area *Biomedizinische Technik* and the *Prüfstelle für orthopädische Hilfsmittel* for their continuous willingness to help and active support.

M. Nietert

THE COMPROMISE PIVOT AXIS OF THE KNEE JOINT
-
STUDIES OF THE KINEMATICS OF THE HUMAN KNEE JOINT
IN REGARDS TO THEIR APPROXIMATION IN PROSTHETICS

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