

Prostheses and Technical Aids in Thailand

By DAMRONG KIJKUSOL, M.D.

Donburi, Thailand

Amputation Surgeon, and Chief of Prosthetics and Brace Shop, Siriraj Hospital. Member of Board of Directors, Foundation for the Welfare of the Crippled, Thailand

Until 1960 there had been no proper prosthetic workshops in Thailand, and any necessary prostheses had either been imported from abroad or manufactured locally by ordinary carpenters or even improvised by the patients themselves.

In 1960, The United Nations Children's Fund, the United Nations Department of Economic and Social Affairs and the Thai Government jointly drew up "the Plan of Operations for Rehabilitation of Handicapped Children" which would provide for a prosthetic workshop to be set up at Siriraj Hospital, as a part of the Department of Orthopedics and Physical Medicine. Mr. Werner Wille, a German prosthetic expert, has been engaged to work here by the United Nations Technical Assistance Board while the necessary machinery and other supplies for the first year have been provided UNICEF, and will be maintained thereafter by the Thai Government. The workshop, which is a very modern building, has been provided by the Foundation for the Welfare of the Crippled, and the War Veteran Organization of Thailand has donated 20,000 bahts (about \$1,000.00) for the purchase of small tools.

Unlike other Asian countries, such as Japan and Burma, Thailand did not sustain great damage during the last World War. Most of the war crippled here suffered their injuries either during the incident in Indo-China in 1942 or in the Korean War and these do not amount to more than a

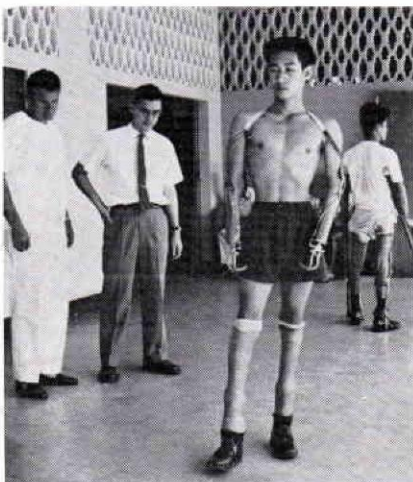


Fig. 1—Training the quadruple amputee. Left to right, Mr. W. Wille and Dr. Damrong.

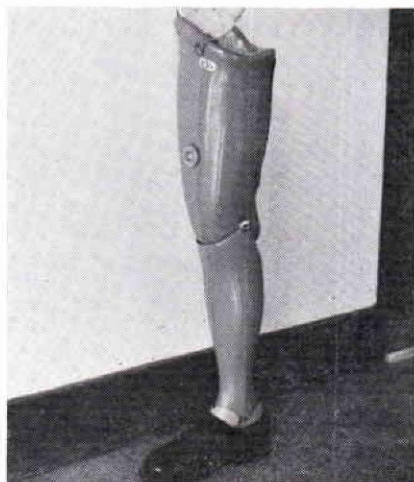


Fig. 2—Suction Socket A/K Leg.



Fig. 3—Above Elbow Arm.



Fig. 4—Double amputee trains the new double amputee.

few hundreds. Therefore, most of the patients or amputees who seek our assistance are those who have sustained their injuries in daily civilian life in traffic and industrial accidents or as a result of vascular diseases, tumors, and congenital abnormalities.

At the present the Government does not pay for the products manufactured in this workshop and the patient either has to pay for them himself or has them paid for by the Foundation for the Welfare of the Crippled or by the War Veterans Organization. For those who are not entitled to financial assistance by any of these charity organizations, the charges will be made according to the financial condition of the patient and quite often prostheses have been provided free for those who cannot pay at all. It is to be hoped that the Government will undertake the financial responsibility in this respect in the near future.

About 25 per cent of the products from the workshop are artificial limbs. The other 75 per cent includes orthopedic technical aids, such as braces, splints, and orthopedic shoes. There are plenty of paralytic patients as a result of poliomyelitis, cerebral palsy, cerebro-vascular accidents, and diseases of the spine. A most important problem is that patients seek our

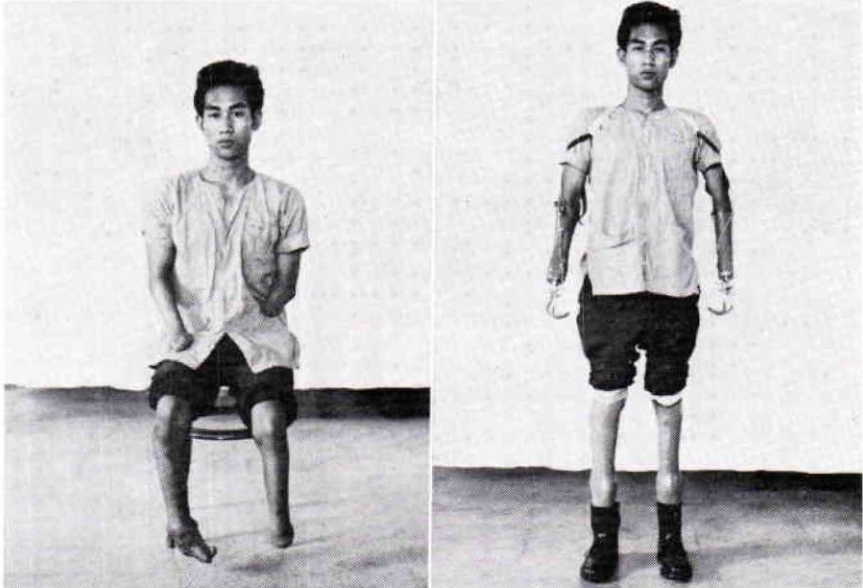


Fig. 5—Case of congenital abnormality, before and after being fitted with prostheses.

assistance too late and already with gross deformities and this renders our work much more difficult than it should be. There are also some crippled people, especially amputees, who prefer to hop around displaying their deformities in the hope of earning sympathy and alms from the public.

Types of Prostheses and Technical Aids

Prostheses for the Upper Extremity Amputee—We make both functional and cosmetic arms and have used both local and imported materials. In 1960, some sockets were made of leather and aluminum, but now all are manufactured from polyester resin (Araldit, CIBA). The terminal devices are either standard hooks, mechanical hands, or dressed hands made of leather, felt and wood. Cosmetic gloves have been imported from the United States for some patients.

Prostheses for the Lower Extremity Amputee—We used to make aluminum or leather artificial legs but are now manufacturing them from wood covered with plastic, both above and below knee. For the above knee amputee, the socket is made according to anatomical shape and a suction socket has also been made. The knee joints used are conventional, conventional with manual lock, and Otto Bock safety knee. The foot is made of local wood, but we have also used imported SACH feet or combination rubber and felt ones. For the below-knee leg some soft sockets (Araldit mixed with Versamid) have been tried out with satisfactory results. New Pedilen sockets have been imported too.

Body and Leg Braces—Body braces and corsets are made for back pain and post-operative spine.

Leg braces, both long and short, are made of orthopedic steel and aluminum with both Swiss lock and slip lock.

Splints—Hand and foot splints are manufactured from polyester resin and aluminum and spring steel. Collar splints are also made of polyester resin.

Shoes—The leather section makes shoes for leg braces as well as for correction of deformed feet such as flat foot, club foot, and those with abnormal inversion and eversion.

American Physical Therapy Association To Meet In June

The 39th Annual Conference of the American Physical Therapy Association will be held at the Jack Tar Hotel in San Francisco, California, June 17 to 22, 1962. The theme of the scientific program will be "Dynamics of Human Motion."

Topics to be discussed by physical therapists, physicians, and other specialists include: "Development of Motor Behavior," "Use of Sequential Motor Development," "Elements of Motor Learning," "Application of Principles of Motor Learning," "Assessment of Motor Abilities," "Testing Methods and Instrumentation," "Recording and Interpretation of Test Data," "Use of Information," and "A Basis for Planning Treatment Programs." Patient demonstrations will reveal practical applications of the basic knowledge of normal motor development.