Use of the Temporary Prosthesis and Adjustable Walking Jig*

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A review of the article by Dr. Lewis A. Leavitt, titled "Rehabilitative Techniques—Adapted," appearing in the Information Bulletin (Dept. of Medicine and Surgery, VA), 10-87, October 30, 1956, in which the frame of reference is to the severely disabled, long-term chronic or geriatric patient, has prompted me to attempt to clarify the definitions of the pylon and other artificial limbs. Also I have added certain comments on the use of the walking jig and temporary prostheses for the younger patients. It is hoped that these comments will clarify the patient area in which the excellent suggestions made by Dr. Leavitt's article pertaining to prosthetic devices for the amputee have most appropriate application.

Dr. Leavitt's reference to a "pylon" can cause a misunderstanding. It may be suitable at this point to define some of the terms used to designate general types of artificial limbs so that a more uniform terminology will result.

The Prosthetic and Sensory Aids Service is urging that the following definitions be used:

Permanent Prosthesis—A completely finished artificial leg that has been fitted to the amputee with the intent to provide efficient and continuous service. The prosthesis must embody all accepted principles of prosthetic fitting that will best compensate for the existing disability with due regard to the economic, vocational and psychiatric facets of the wearer.

Temporary Prosthesis—An appliance worn by a recent amputee pending the procurement of a permanent artificial leg or the contradiction of a prosthesis. Due to the inherent purpose of this appliance, perfection in fit, alignment and function is usually not sought. The prime purpose of the device is to obtain early attempts at ambulation at the possible expense of prosthetic perfection.

Pylon Prosthesis—An artificial leg, either temporary or permanent, which does not incorporate a knee and/or ankle joint in its construction. The body weight of the wearer is transmitted to the ground by means of a hingeless support (peg leg).

Stubbies—Artificial legs, either temporary or permanent, used by bilaterial above knee amputees. They consist basically of a socket, whose distal end is so modified to bear the body weight when walking.

It must be appreciated that all artificial legs cannot arbitrarily be classed into one or the other of the above definitions; variants to meet existing disabilities and other factors will, at times, nullify the attempts to formally catalogue an artificial leg. The greater majority of all fabricated legs will readily lend themselves for this classification, and an accepted nomenclature will materially assist in the interchange of thoughts.

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Returning now to the article of Dr. Leavitt, it is the opinion of the Prosthetic and Sensory Aids Service that *temporary limbs should be issued to amputees very cautiously.* Fitting a prosthesis is not a simple task. The alignment of the limb, the selection of component parts, and the fit and construction of the socket is a serious problem that the VA is delegating primarily to physicians who have been specially trained in prosthetics and to prosthetists who have taken graduate courses on the subject.

When temporary limbs are used to provide a *quick and inexpensive* substitute for an amputated limb the components of the limb are necessarily of a lower quality and workmanship than those that will be provided in the permanent limb. It is natural that the temporary limb will not afford the fit and function that the permanent limb will offer, and the wearer must acclimate himself to a limb that *nearly* fits and functions. He will obtain his first prosthetic impressions from this poorly fitting limb and may be psychologically conditioned against all limbs in the future. At a minimum, he must bear with the poor limb for a period of time and later must readjust himself to his permanent prosthesis. It is entirely conceivable that he may develop bad walking habits with the temporary limb which he will never be able to overcome when he receives his permanent limb. We would much prefer to see the physician prescribe a standard type of permanent prosthesis *having a replacable socket* which can be changed after the patient's stump has undergone its usual changes. For below-knee amputations, this limb could be a standard wood, metal, or fiber leg with a replaceable insert socket; and for above-knee amputations, a standard wood leg could be provided, since the socket can easily be cut off just above the knee block and a new socket can be installed, without affecting the alignment or stability of the prosthesis.

In the instance of the older amputee, where there is considerable doubt as to whether he will ever be able to fully handle a prosthesis and where walking habits are of lesser importance, a temporary limb presents a slightly altered picture. However, even this older amputee should not be fitted with a temporary limb made from remnants of discarded limbs and by a technician who has the ability to assemble parts but many not have the knowledge of fabricating a dynamically acceptable limb. The components of a temporary limb, even with these older amputees, should approximate those that will eventually be incorporated in the permanent limb, and the technician making the temporary prosthesis should be fully qualified in his trade.

Turning to the question of the adjustable walking jig, the most recent course on A/K prosthetics given at New York University does not favor the long and unsupervised use of the jig by the amputee. The patient can easily change the set screws and other controls in the knee while he is unsupervised and thereby throw the original alignment out of plumb. This would defeat the time and effort expended in the attempt to align the limb properly when the jig was set originally. Its use should be limited to the supervised shop under the direction of a trained prosthetist for such periods of time as it is necessary to determine the optimum alignment that can be provided in an artificial limb.