A Surgeon Comments

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The problems of rehabilitation of our crippled population are receiving increased attention with each passing month. Most of our state and federal agencies have stepped up their programs for both medical and vocational rehabilitation, and much more money is now being spent to return handicapped people to useful functions in society. Part of the National Conference on Aging held in Washington in January was devoted to the medical rehabilitation of patients fitted with artificial limbs and braces. The focusing of a well-publicized national spotlight on this problem will certainly add impetus to the entire program, and facilitate the prescription of up-to-date limbs and appliances for needy cases.

The National Orthopaedic Hospital in nearby Arlington, Va. has announced plans for an ambitious program for an entire building devoted to industrial rehabilitation of the crippled and handicapped. The unique idea retains the well-established vocational training of handicapped individuals, but at the same time contract work will be performed by them for commercial companies, thereby providing a source of income for both the patients and the vocational facility. Plans call for an entire building of machine shops, leathercrafts, carpenter and paint work, sheet metal and lathe shops, etc.

The PTB below knee prosthesis has lately encountered unforeseen problems. Several of our amputees who initially were very pleased with their new prosthesis and had made remarkable progress, including one bilateral amputee fitted with two PTB prostheses, have recently developed painful, sometimes ulcerated areas on their stumps. X-rays of the amputation stump have revealed bone spurs of considerable size which had not previously caused any difficulty with conventional sockets without total contact fitting. Several of these amputees have been forced to revert to their old prostheses and will require surgical excision of their bone spurs before they can again use their PTB prostheses. It would appear that routine x-rays of the amputation stump should be ordered before fitting with a PTB prosthesis to determine the presence of exostoses (bone spurs). Large spurs must be removed or will have to be considered as a contraindication to fitting with a total contact socket. The spurs are usually located at the lower extremity of the amputated bone and therefore cause no problems with the conventional type of prosthesis in which the fitting contact is above, at knee level on the tibial tuberosities.

The use of a shoulder harness in the older amputee sometimes is followed by other problems, particularly discomfort in sitting if the web belt is too tight. The insertion of an elastic section in the web belt relieved this problem in a 72 year old man who had been using a shoulder harness for forty years. Incidentally, he was also fitted with a Bock knee which gave him great stability and which pleased him immensely. It was quite rewarding to note how quickly he adapted to his new type knee, as the usual slow adaptation and resistance of the "oldster" to new devices was anticipated.

Edema of the stump can sometimes be controlled by the use of the ordinary shrinker stocking beneath the stump sock. In one case of repeated

swelling in a BK amputee this worked quite successfully to control the swelling while wearing his prosthesis. Perhaps our readers have other ideas or innovations to cope with such a problem.

A well-known problem with the use of lower limb appliances in our senior citizens is the rapid shrinkage of the stump because of the large proportion of subcutaneous fat and diminished vitality of the stump musculature. The use of liner inserts for proper fit should not be long delayed or the amputee may be discouraged and stop using the limb.

Please let us hear of your recent experiences with the PTB prosthesis. Have you encountered many spur problems? This is a very important point, which, if recognized, may prevent the needless expense and discomfort of replacement of wrongly prescribed total contact sockets.

Nelson Gadgets

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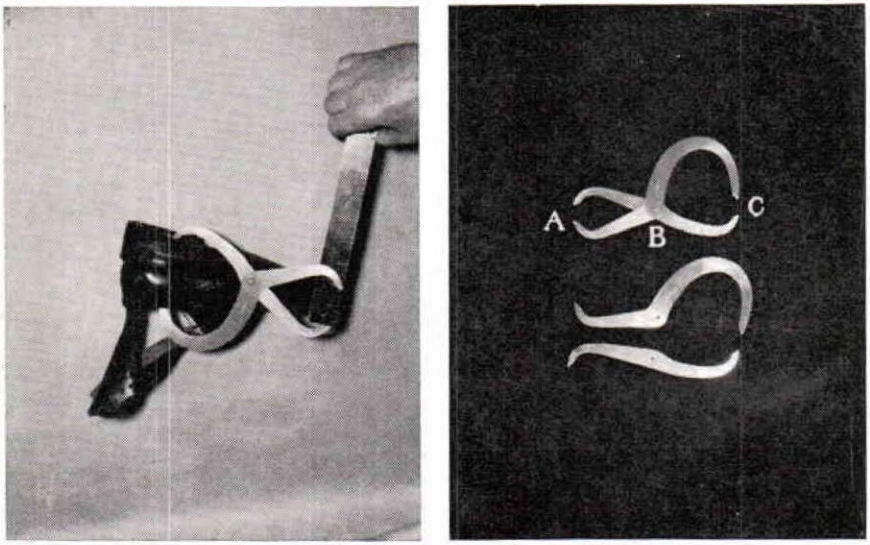

GADGET NO. 6—Double Caliper

Courtesy of Ben Pecorella, C.P. & O., Buffalo, New York

For measuring the elevation of a shoe or the thickness of a wall, such as a limb, etc., there is nothing as effective as this Double Caliper. As shown in the illustration, you close the one end over what you want to measure and with a ruler take a reading on the other end. The opening on one end is always the same as the other end.

The size and shape of this caliper is entirely optional. The only important factors are: No. 1, the distance from center "B" to jaw "A" and from center "B" to jaw "C" must be exactly the same, No. 2, both Jaws "A" and "C" must close at the same time. The model shown here is 8½" long and we have found this size and shape very handy around a brace shop. It is made from 16 guage hard aluminum. For center, we use a ⅛" rivet with a thin leather washer under the head.