Lever Locking Device

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On a set of bilateral long leg braces, unlocking four locks becomes quite a problem for the patient.

A lever unlocking system was developed by the authors that allows the patient to unlock both sets of drop locks with a simple lever attached to the proximal end of the lateral upright on the long leg brace with a cable attached to the locks.

We used the Pope Brace Company’s Bale Lock uprights because of their adaptability to this system. We discarded the bale on the lock and retained the lock and return spring. On the screw that the springs fasten to on the lock, an “eye” was also applied. The cable housing was fixed to the brace by three aluminum “keepers” (1 double and 2 single). The cable and housing are the type used in Below Elbow Controls on Prostheses. The ends of the cable were soldered to the eye with silver solder.

The lever is an adaptation of the type used on the Army Aluminum leg brace. It is riveted to the upright, and a screw was located on the upright to stop the lever in the locked position.

To operate the locks the patient merely pushes forward on the lever, raising both locks and simultaneously flexing the knees. Upon extension the locks are pulled into the locked position by the return springs. The proximal ends of the lower uprights are rounded off, so that the locks travel a shorter distance.

TO PRESENT ASSEMBLY PROGRAM

A program on *Plastisol Coatings and Application Techniques* will be presented on Tuesday morning, October 18 by two representatives (see below) from the University of Michigan Medical Center. Research work on the new brace covering material is being carried out under a grant from the Vocational Rehabilitation Administration and the Sister Elizabeth Kenny Foundation.

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