A PROTECTIVE 'SHIN-GUARD' SPLINT

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THE exposed and prominent edge of the shin is the site of occasional decubitus ulcer in patients with spinal cord lesions. Wounds of this area heal slowly even in patients with a normal neuro-anatomy and the same is true of the ulcerations in paraplegics. Inasmuch as tissue atrophy, disturbed circulation, and a thin epidermis scar leave this region vulnerable to extrinsic damage, the designing of the following splint as a 'shin-guard' appeared justified (figs. 1, 2, and 3).

FIG. 1

Note severe atrophy of left leg, disturbed circulation, and thin scarred epithelium over upper portion of shin.

FIG. 2

Top view of protective 'shin-guard' splint. Note holes for air circulation reduce sweating. Velcro fasteners on webbing are provided at upper and lower ends.

The splint is first fashioned from a piece of aluminium sheet, about 20 cm. by 50 cm., using grade 24 T 3. This is curved to fit the leg over the shin and the corners are rounded off. Air holes about 1 cm. in diameter are punched out at desired intervals. These are important in order to reduce sweating beneath the

splint. Sponge-rubber strips are glued along the side edges on the inner surface. The sponge-rubber strips are 1 cm. in width and 1 cm. in thickness and their length depends on the desired length of the splint. They are glued to the inside of

FIG. 3
Side view of 'shin guard'.

the aluminium sheet with Barge cement. The splint is then lined on the inside and covered on the outside with medium horsehide with an overlap of about 2.54 cm. at each end. These pieces of horsehide leather are also glued with Barge cement to the inside and outside of the aluminium sheet and over the pieces of sponge-rubber on the inner edges. Webbing about 2.54 cm. in width is applied around the upper and lower portions of the leather ends of the splint, adding Velcro fasteners which allow for proper fastening at all times and make it more simple for quadriplegic patients to apply.

SUMMARY

A protective 'shin-guard' splint is described.