Protective Cover for Hydraulic Ankle Brace Cylinder

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Our early experience with the functional leg brace was complicated by the tendency of a ten-year-old boy to unscrew the hydraulic cylinder, thereby rendering the device inoperative and voiding the warranty. Assistance was requested and it was suggested that a plastic cover be constructed to prevent tampering with this mechanism.

The cover was designed and fabricated by Mickey Warner and Dorsey Hildebrand of J. E. Hanger Company of Louisiana, Inc. The hydraulic cylinder was removed from the unit and pressed into a block of "Presto Cast Foam." Plaster of Paris was poured into the impression to form the male mold. Five layers of nylon stockinette were then tailored to the male cast and impregnated with 4110 laminac resin.

It is our impression that this is somewhat more heavily constructed than it needs to be and that two or three layers of stockinette might be sufficient. However, the device (Figure 1) does not add materially to the bulk of the apparatus (Figure 2 and 3) and has so far solved the problem of the young brace wearer destroying the hydraulic cylinder.

It is suggested that it might be advantageous for the factory to supply a protective cover, which undoubtedly could be produced in quantity more efficiently, possibly by some other method.

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