

# A MODIFIED LOW BACK BRACE

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*Editor's Note: One of OALMA's current projects is the compiling of a Brace Dictionary, listing both new designs and modifications of older braces, such as this article describes. Readers are asked to forward photographs, drawings and descriptions to OALMA's Headquarters, 411 Associations Bldg., Washington 6, D. C.*

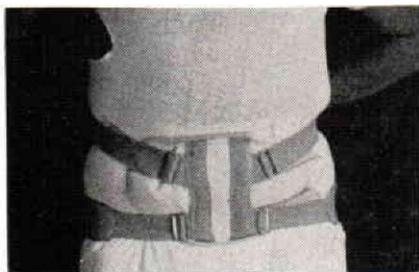
The idea behind the construction of this simple low back brace may be traced to the annoyance caused by objectionable features of the commonly used chair back brace, which was worn by one of the authors.

The chair back type, while providing more stability and immobilization of the lumbar spine, often fails to conform easily to the different postural variations found in affections of the low back region. In one case there may be a list of the spine to the right (or the left); and in another a loss of the normal lordotic curve or conversely an exaggerated lordosis. The latter positions are more easily compensated by shaping the posterior uprights of the brace. However, it is much more difficult to accommodate lateral listing or shift of the spine.

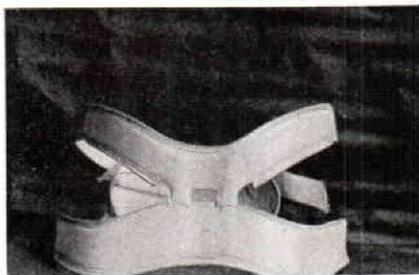
Practical clinical experience over many years has proven that patients will often refuse to wear a rigid support. This reaction is not for whimsical reasons, rather it seems that the brace does not add enough to the patient's comfort to make the wearing worthwhile.

One common objection is the pressure on the rib cage from the top band and the side bars. It is a fact that with each step forward the weight of the body is shifted to the opposite leg and the top band and side bar press firmly and unforgettably against the side of the body. This same pressure is then exerted against the opposite as the other leg is lifted. One is constantly aware with walking of the uncomfortable shifting pressure, first on one side and then the other. Even more objectionable is the attempt to make the body conform to a fixed brace position when muscle spasm is constantly shifting the spine in another direction.

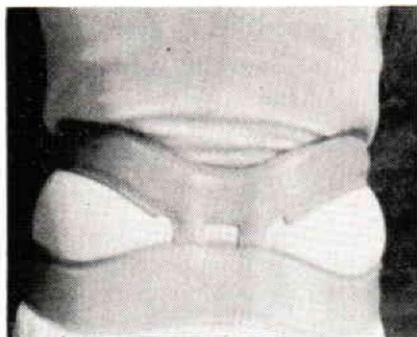
Many low back cases are able to do light work while wearing a brace, but the height and confinement of the chair back brings a constant request for a type that will permit more comfortable activity. Thus, it was the demand for this change which resulted in the experimental use of several variations. From these was evolved the present illustrated model. The brace which is shown may not secure the absolute rigidity of the chair back or similar types, but does at least obey the basic fundamental of a low back support that it grip the pelvis. With its light, pliable structure, it does not need the very uncomfortable perineal strap to hold it down.



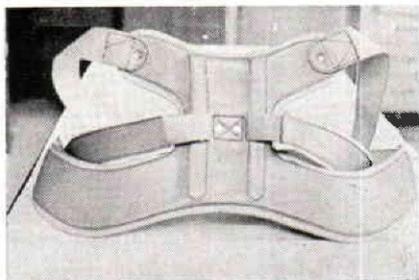
Front Apron



Back View



Brace on Patient's Back

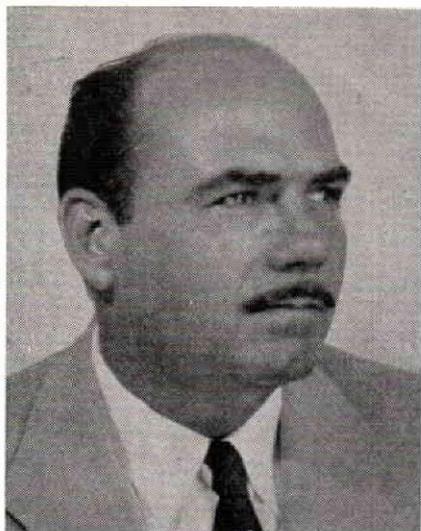


Back View of Brace

The authors have used the present model for the last five years. They do not feel that it presents an original design. It is, in fact, merely a modification of old existing forms but from a practical standpoint, the support has proved to be useful. Moreover, patients will wear this support and complain less than they do with any other type of low back brace. In male patients the support is worn as shown. In female subjects, it can be used similarly or in the form of a framework attached to a corset.

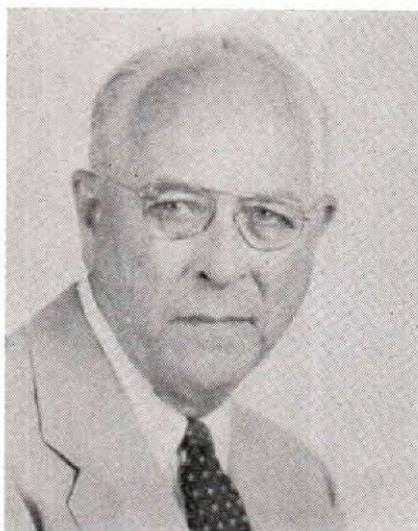
This low back brace is constructed with aluminum bands and light gauge spring steel uprights. We use .064 aluminum sheeting for the pelvic band, cut in a butterfly shape to fit snugly around the pelvis. The upper band is made from .062 or even lighter material, depending on the case. The two spring steel uprights  $\frac{1}{2}'' \times 1/16''$  vary from 5" to 8" in length. The brace framework is held in place by 3 straps attached from each side to an apron front, or it can be used alone by fastening to a corset with snaps. This method permits easy removal of the corset for laundering.

Light weight felt is used to pad the frame and the covering inside and out is a plastic material, which eliminates odor and is easy to clean.



**CLYDE BOWEN**

Clyde R. Bowen is a native of Florida and was educated in the public schools of that state and began his training under Arthur Finnieston in Miami. After completing his training under the supervision of Wilmore Bremer, he opened his own establishment in July, 1945 in Tampa. Mr. Bowen removed his facility to St. Petersburg in 1950. His professional association include clinic work with the Florida Crippled Children's Commission, the Sarasota Clinic and the American Legion Hospital for Crippled Children. Mr. Bowen is a Certified Orthotist and was a delegate to the New Orleans Assembly.



**ROBERT C. LONERGAN, M.D.**

Robert C. Lonergan received his medical degree from Johns Hopkins University in 1922 and completed his residency in orthopedic surgery at St. Lukes Hospital in Chicago and the Children's Hospital of Harvard Medical School. He was engaged in private practice in Evanston, Ill., before going to St. Petersburg, Fla., in 1943. Dr. Lonergan has been a faculty member in the Department of Orthopedic Surgery for the medical schools of Johns Hopkins, Harvard and Northwestern Universities. He is a Charter Member—Diplomate of the American Board of Orthopedic Surgery, a member of the Academy of Orthopaedic Surgery and other medical organizations.

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