THE STRYKER FRAME

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The care of paraplegics has always been a major nursing problem; many methods have been used, but most of these are difficult, complicated and time consuming. When, in 1937, an American, Dr. Homer Stryker of Michigan University, developed the Stryker frame he solved many of these nursing problems, and the U.S. Army and Naval hospitals proved its worth during the 1939-1945 world war. Today, American, British and other U.N. forces in Korea and Japan are using it with great success.

Among the many problems which confront the nurse when looking after a paraplegic are the prevention of bedsores, hypostatic pneumonia, and venous thrombosis. The Stryker frame, while not wholly eliminating these complications, simplifies their management, and does away with the heavy labour associated with the nursing of a paraplegic in a plaster bed.

Since its introduction, the frame has been found eminently suitable for, and has greatly simplified the nursing of, some severe accident cases and battle casualties; for example, extensive burns, large suppurating wounds, and patients with incontinence.

The Stryker frame consists of eight principal parts (see next page).

1. The standard frame trolley (Fig. 1). This tubular frame with four uprights and running on four swivel wheels forms a conveniently sized oblong. Fitted to the four uprights are two runners (Fig. 1A) to hold the Stryker turning frame.

2. The Stryker turning frame. This consists of two tubular, triangular-shaped ends, joined together by two tubular supports (Fig. 2). At the apex of the triangle is a pivot pin and the pins for the attachment of the anterior and posterior frames.

3. The posterior frame. This rectangular tubular frame has a canvas cover which is kept evenly taut by the use of rubber fasteners (Fig. 3). The canvas is split in halves for toilet purposes (Fig. 3c).

4. The anterior frame. Similar in shape and size to the posterior frame, it has a short canvas cover with a perineal opening (Fig. 4). Also fitted to the anterior frame is a "headpiece." This consists of a 4-inch to 6-inch strip of canvas covered with lint or cotton wool (Fig. 4). The forehead rests comfortably on this padded strip of canvas for over two hours.
The Stryker Frame

5. Two arm supports. These are made of planed wood with metal rod attachments which fit into holes in the tubular supports of the Stryker turning frame (Fig. 5).

6. The platform tray or trays. These are planed strips of wood of such dimensions that they slide along the tubular supports of the base of the turning frame. These support a bed-pan when necessary and also act as a table when the patient is lying on the anterior frame (Fig. 6).

7. The foot support consists of squared, shaped steel rods which are covered with canvas, which is kept taut by the use of rubber fasteners. The support is clipped over the posterior frame and can be held in position by straps (Fig. 7).

8. The overhead frame (Fig. 8). This tubular frame fits into holes at the apex of the triangle of the turning frame (Fig. 2b).

The nursing care of the patient on a Stryker frame follows the rules set down for the nursing of any patient. However, with the frame, it is common practice to turn a patient over every two hours. This practice will depend somewhat on the patient's diagnosis and condition. In some conditions the patient is permitted to sleep on the posterior frame during the night, his position being changed every two or four hours during the day.

The technique of manipulation of the frame is simplicity itself. One or
preferably two nurses are required for the procedure, and for the purpose of illustration the patient is lying on the posterior frame, *i.e.*, on his back.

To turn him over, pillows are placed over his legs and body, up to and including the chest. This helps to secure the patient, and also gives him something soft and comfortable on which to lie. The anterior frame is then placed on the pivots and the nuts screwed on securely.

If the patient has control of his arms, he places them round the anterior frame. If his arms are badly burnt or paralysed, they are tucked well into his sides, care being taken that his arms are firmly secured, and before he is turned the nurse makes sure that he cannot slip during the movement. The patient should be instructed as to which way he will be turned.

The two nurses then stand at either end of the frame and each with her right hand pulls out the two spring locks, meanwhile steadying the frame with her left hand. The patient is then turned, and when the spring locks have sprung back into position and have been checked, the posterior frame and pillows are removed. Bed-clothes are now replaced. These can either be placed over the patient and left hanging over the sides of the bed, or they can be hung over the overhead frame and draped on either side of the patient. Experience has taught me that the majority of patients prefer to be turned over quickly, as this eliminates the giddiness sometimes felt when being turned over slowly.

Transportation of the paraplegics has always proved a problem, and the frame provides the ideal answer. Comparatively small, and easily portable, the bed is simply wheeled to the X-ray Department as required. If it becomes necessary to move the patient to another hospital, the frame, less the trolley, slides easily into an ambulance or train.

Like many other methods or inventions, the frame will have its critics, but its usefulness cannot be denied, and in my opinion there is no doubt it will find its place in all hospitals as an indispensable adjunct to the nursing of paraplegics.

**Summary**

I have attempted to give a brief review of the Stryker frame, a new method of nursing paraplegics widely used throughout the U.S.A.

I strongly advocate its wider use in the British Isles as a new and better method of nursing paraplegics.

A similar turning frame is made by the Medical Supply Association, Ltd., in England.

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