then tied, binding together the various structures that have been united; the knot is permitted to sink under the skin, the ends being cut short (Fig. 6).

Thus there has been built up in layers a perineum consisting of united mucosa, muscle, fascia and skin. All the sutures being buried and the layers bound together compactly there are practically no dead spaces. A small strip of iodoform gauze introduced into the vagina is permitted to hang down over the skin sufficiently to cover the skin incision. This serves as a guide to the nurse in catheterizing and protects the incision. The catheter is used for two days after which the gauze is removed and if desirable a daily douche is given. The patient may sit up on the tenth day, and cautiously resume her duties after two weeks.

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THE TREATMENT OF SCOLIOSIS

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In treating scoliosis by means of orthopedic corsets I think that it is difficult to meet the two most important requirements, the one of giving a reliable and uni-



Fig. 1.-Patient with scoliosis.

form support to a deformed spine, the position of which has been improved by mechanic or gymnastic treatment, and the other of exerting a correcting influence on certain parts of the body by means of the orthopedic corset itself.

A number of good and practical corsets have been devised, giving satisfactory results to a considerable extent. While the Hessing corsets furnish only a thorough support to the spine, a good correcting corset has been described lately by Bradford, the correcting force being exerted by means of shoulder straps, circular transverse springs and a swinging upright for pressure on the neck. But it seems to me that in cases in which there is a considerable shifting of the body to one side, for instance, in which the lumbar part of the spine is primarily involved in the curvature, not enough hold may be gained for correction and the maintenance of the corrected position of the spine.

The sideward shifting of the body will always result in a lifting of the pelvic belt of the corset from the crista ilei of the opposite side, unless its position there is otherwise secured. In order to obtain this advantage, and, on the other hand, to exert some correction on the costal prominence, I attached to the pelvic belt on the healthy side a thigh-piece connected with a hinge and embracing the leg by means of a padded ring right above the knee.

On the side of the scoliosis a pad corresponding to the costal prominence articulates by means of a hinged steel piece with the pelvic belt, a similar pad being attached on the corresponding anterior costal prominence of the opposite side.

On both pads a considerable amount of elastic pressure is secured by a couple of springs. It is easily to be seen that, if the attachment to the leg is given an outward bent and then fastened closely above the knee, an opposite movement of the pad will result in bringing the sideward shifted body over the mediam line to the other side.

Two uprights in the back on both sides of the spinous processes give the body rest and allow the shoulders to

be pulled back by means of shoulderstraps (Figs. 1, 2, 3 and 4).

Both patients with right dorsal lateral curvature, shown in the photographs, were given a previous mechanical treatment of several months. It consisted in gymnastic exercises, manual redressement, especially directed toward the lumbar curvature and the detorsion of the scoliosis, and some massage.

After I had convinced myself that the lumbar portion of the spine had gained a sufficient amount of flexibility I had the patient wear the contrivance, as described above, while the gymnastic exercises were being continued.

The considerations which led me to pursue this mode of treatment are, briefly, the following:

I have to a great extent given up mere extension as a method of correcting curvature, because of the fact that the detorsion of the body would not keep pace with the extension of the

spine thus obtained, the formation of flail intervertebral joints and increased flabbiness of the spine being the result. Most of my attention is directed toward the detorsion of the chest and the mobilization of the lumbar part of the spine, which, as a rule, is the last to maintain a certain degree of flexibility, when the dorsal part of the spine is already hopelessly fixed. Then, if the sideward displaced body is shifted to the other side by means of the apparatus and an over-correction exerted, the upper part of the spine will have to respond with a self-correcting secondary curvature to the side of the disease in order to regain the median line.

Thus a considerable improvement of the deformity is caused under the influence of weight-bearing and without causing flail joints, while other



Fig. 2.—Same patient as in Fig. 1, with orthopedic corset.

methods try to overcome the influence of weight-bearing and result in the establishment of loose joints.

In cases treated after Schanz' method (double extension from neck and ankle and application of correcting plaster-of-Paris jacket, to be changed every four to five days under similar precautions) I have also seen the straightened spine assume the form of triple scoliosis in spite of much care in applying well-fitting casts, the deformity, however, being considerably improved. It seems that the flabby spine came to a rest in this form of deviation if it was forced by the jacket to keep as near as possible to the median line.

The discomfort of the patient when treated with high-reaching casts and corsets has sometimes proved an unsurmountable obstacle in older girls of delicate and chlorotic constitution.

The principle of using the hip joint and the motion of the leg for correction of deformities of the body might

prove useful also in deformities other than lateral curvature. As far back as 1867 leg attachments have been used for corsets, first by Wales, later by Lorinser and Biondetti.

Clinical Notes

INSTRUMENT FOR APPLYING OINTMENT TO DRESSINGS AND WOUNDS W. LAWSON THORNTON, M.D. BALTIMORE

The accompanying illustrations show a simple contrivance for applying ointment to dressings and wounds. The instrument is contrived from an all-metal syringe.



Fig. 1.-Instrument for applying ointment.

The nozzle of the syringe is replaced by a wedge-shaped opening, through which the ointment is expressed in a ribbon-like film. By adjusting the sliding-plate (Fig. 1) the film may be made as thin or as thick as is desired, or the opening may be completely closed. By inverting the sliding plate a narrow film is obtained.

The instrument may be filled after removing the metal piston or by aspirating melted ointment. When the instrument is filled it may be boiled or placed in the sterilizer.

Fig.3.—Patient wearing scoliosis corset, with leg-brace unfastened.



Fig. 4.—Patient wearing scoliosis corset, with leg-brace fastened.

The ointment may be applied to the dressing as is shown in Figure 2, or directly to the wound. If the ointment is applied to the surface of the wound, the instrument is held above the surface and the ointment forced out in a ribbon which applies itself smoothly to the surface of the wound.



Fig. 2.-Method of applying ointment to dressings.

The instrument has the following advantages:

The ointment is applied in a smooth, even film of any desired thickness, and a neat dressing is obtained.

The ointment is kept sterile and ever ready for use. A dressing can be made conveniently and rapidly, and the ointment is economized by this method.

The instrument is made in various sizes and can be bought for little more than the cost of a metal syringe. It is manufactured by Willms Instrument Company of Baltimore.

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