it may be trachoma. In treatment they introduced analgaesics for operations; peritomy for pannus, cautery for lacrymal fistula, pterygium and symblepharon plastic operations; and Eye Hospitals in Baghdad, Damascus and Cairo. When the Mongols and Tamerlaine decimated the first two, Cairo escaped because they did not reach Egypt.

NOTE.—Nearly all the volumes mentioned were shown during the meeting, including a photostatic copy of Zarrin-Dast's manuscript from Oxford University. There are a number of early editions in the Hunterian Library of the University of Glasgow, which cannot be taken out of the building, but may be shown to a meeting in the Library itself.

OCCUPATIONAL THERAPY IN EYE WARDS*†

BY

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OCCUPATIONAL therapy is really no innovation. Florence Nightingale evidently believed in it when she wrote "... a little needle-work, a little writing, a little cleaning would be the greatest relief the sick could have if they could do it."

But as an organised and purposeful therapy it really dates from the last War, when to quote the "Canadian Journal of Occupational Therapy" "... the need for occupation among convalescent soldiers became so apparent that short courses were given in Toronto." In 1928 this was extended to civilians, with the result that throughout Canada and the U.S.A. there is a highly organised and well developed system of occupational therapy both in hospital and for private patients in their homes, with excellent training schools where students receive a thorough grounding in the anatomical, physiological and psychological basis for their work. In Scotland, so far as I know, the Astley Ainslie Institute, Edinburgh, is the only civilian hospital participating in this work, indeed I believe it is the only place in Britain where eye patients receive such treatment.

Why should it be called a "therapy"? "The underlying theory behind it is that the provision of interesting and productive tasks for unwell people will assist them in accomplishing a cure." This is obvious in general medical and surgical cases (Cunningham, 1942).

It is obvious that if a muscle is wasted one can give it exercise without the patient's knowledge by prescribing a craft which will call this particular muscle into play. But it is not so obvious in the case of diseases of the eye. Generally speaking rest and not exercise is required. Here it might be said that the cheiroscope,

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used in the treatment of strabismus and heterophoria is but a form of occupational therapy. One might well consider that careful thought should be given to the possibility of using crafts to achieve binocular fusion with the added psychological impulse of real interests. For example by analogy with nerve palsy elsewhere, there must come a stage in ocular nerve palsies where exercise is required and this might be achieved by weaving or stool seating with wools of complementary colours in the fashion of anaglyphs.

Apart from muscular anomalies there is one class of patient for whom much more must be done than at present—the unfortunate individuals who have lost an eye. For these it is advisable to lose no time in re-education in depth perception. This can be started within two or three days of the operation by giving them simple patterns to draw on paper and cut out—I use old X-ray films and old black X-ray paper. The rather dull walls of the ward have been decorated with cut out swallows flying and swooping.

This pattern making can be extended to fret-work—at first very simple. Weaving or stool seating (but not basketry because of its association with blindness) can also be introduced. Once ambulant, hammering of nails along a line drawn in the wood and each to a specific depth is a good exercise and forms a quantitative measure of recovery. They can quite well employ this time making themselves one of the knitting machines shown. Table tennis and darts should be introduced when ambulant and the therapist should be the opponent to grade the necessary skill required. The next stage is drilling—with equal demands on accuracy and neatness, metal beating (making simple ash-trays), and cross stitch embroidery and tapestry. The final stage is when they can beat the Occupational Therapy worker in the popular American game of “Pick up Sticks”—a game requiring a high degree of co-ordination of hand and eye. These stages may be carried out while an out-patient.

These two classes, squints and the one-eyed, are those for which the therapeutic side is obvious. What is its advantage to the remainder—the majority—of eye patients? Here it is certainly psychological. Unlike Military Hospitals there is not the same necessity to retain civilian patients in an Eye Hospital for long, but nevertheless a substantial number are lying, unable to read or do jig-saw puzzles like the patients in a general ward. Their minds are active and their fingers itching to do something. The women may knit, but the men have nothing, and even knitting may pall. Here I quote the American Journal of Occupational Therapy and Rehabilitation on the institution of Occupational Therapy in a children's ward. “Treatments kept the children busy and contented; they were much happier and easier to handle; it reduced rowdiness and restlessness; and that the general nursing service

was improved by the lack of promiscuous calls that frequently result from the absence of something constructive to do." This latter point may appeal to the Matron.

I have demonstrated nine different crafts suitable for bed patients, roughly graded in terms of the amount of vision required, although all can actually be performed by the blind. The craft prescribed and progress report can be made on a card such as that demonstrated.

Now as to cost. I have ascertained these in detail for a hospital the size of the Glasgow Eye Infirmary (120 beds). Permanent equipment would cost about £12, and expendable materials £85. This latter would be recovered from patients by charging cost plus 30 per cent. for wastage. The salary of a graduate Occupational Therapist is £225 per annum rising to £275, Astley Ainslie training school provides the 18 months' to 2 years' course required and has difficulty in supplying the big demand that comes from hospitals and firms in England. The detailed costs are laid before you. There is no need to limit it to the hospital walls, an occupational therapy shop or even club for out-patients can extend this to patients' homes and your private patients in nursing homes may well be grateful for this useful and satisfying occupation to relieve the tedium of a private ward.

ILLUSTRATION 1.

Rug Wool weaving—Bath Mat.

ILLUSTRATION 2.

Persian Rug—wool is looped round pairs of warp threads and on completion of each row a shuttle of weft yarn is carried across and beaten close, so that the wool does not appear on the back and no backing material is therefore required. The warp is wound on to a frame and consists of string; hence canvas (which is in short supply) is not required.

ILLUSTRATION 3

Knotting. Bag using rug wool and wooden handles.

ILLUSTRATION 4.

Knotting. Detail of the knots used. The wool is taken in groups of four, the outer ones tied with a reef knot over the inner and repeated, then the groups are split, and adjoining couples taken together so that the inner strands become the outer, and vice versa.

ILLUSTRATION 5.

Sea-grass Woven Stool. The principle is easily seen in the illustration.

ILLUSTRATION 6.

Tablet weaving (making a belt). After carrying the shuttle across between the shed, the tablets are rotated according to a predetermined plan, thus changing the particular threads above or below the weft.

I am indebted to Miss Hampson, lately Director of the occupational therapy unit and training school at Astley Ainslie Institute; to Miss Dickson, her successor, for help and for the most excellent demonstration of methods.

Some crafts suitable for eye patients requiring occupational therapy

1. *Rug Wool Weaving—Bath Mat.*—This is first weaving project as materials are coarse and work can be done by sense of touch. (Illustration 1.)

2. *Persian Rug.*—Knotting simple and no eye strain as in rug making on canvas although finished product is the same. Different coloured wools kept in different boxes. (Illustration 2.)

3. *Knotting.*—Bag using rug wool. Material soft but coarse and easily handled. Colours should be carefully chosen so that patient can distinguish them. (Illustrations 3 and 4.)

4. *Macrame Cord Knotting.*—As patient progresses use cord instead of rug wool. Choose colouring with care. (Many say that red hurts the eyes.)

5. *Knitting Machine.*—This can be used with any size of wool depending on the degree of vision required. If necessary it can be done entirely by touch. A crochet hook issued.

6. *Basketry.*—Good craft as much of the work can be done by a sense of touch. Must be used carefully by the therapist lest the patient associate the craft with the blind and worry unnecessarily about his sight.

7. *Sea Grass Weaving.*—Using ready made and simple pattern eye patients expend more physical energy at this than in working with wool. Bending over is avoided by having the work at the correct height. (Illustration 5.)

8. *Weaving on Scarf Loom.*—(1) Winding wool and warp requires little vision. (2) Threading of loom done by patient and therapist. (3) All plain or contrasting colours used—care to be taken in choice of colour. (4) Careful choice of pattern, degree of concentration and precision may be varied.

9. *Tablet Weaving.*—Slightly more difficult craft. Once technique is understood patient is profitably occupied without strain to vision. A good bed craft as it can be adjusted to patient's position. (Illustration 6).

BIBLIOGRAPHY

- GORDON, T. (1935).—*Canadian Journal of Occupational Therapy*, Vol. II, p. 80.
 TURNER, H. (1938).—*Ibidem.*, Vol. V, p. 49
 SEAWELL, A. C. (1940).—*Occupational Therapy and Rehabilitation (American)*, Vol. XIX.
 CUNNINGHAM, J. (1942).—*Nursing Times*, "Rehabilitation of the War Worker," March 31, 1942.
 Dryad Handicraft Instruction Leaflets, Dryad Handicrafts, Leicester. 30/-