

1892 females, and has found only two cases of colour-blindness among them. This, in connection with the examinations at Breslau, gives a result of only three colour-blind among 4210 females.

This question is by no means a matter of mere idle curiosity, but may have an important physiological bearing. If more extended researches establish this strong contrast between the sexes it cannot, of course, be considered the result of chance, but must have some principle behind it. The only theory proposed is that of heredity, which supposes that as women are, as a rule, much more occupied with colours than men are, the greater exercise of the chromatic sense results, in the course of generations, in its more perfect development and less liability to imperfections. This theory has already been used as an argument by those who maintain that colour-blindness may be cured or diminished by exercise with colours. This argument seems to us not a very strong one, as the effect of constant use through many generations may readily be admitted without implying that a corresponding tendency is perceptible in the individual. The fact of the extremely rare occurrence of this defect in females may be more available, however, for those who advocate, with Geiger and Magnus, the evolution of the colour sense, though we believe it has not yet been pressed into this service.

Wallace says (*Tropical Nature and other Essays*) that "the fact that colour-blindness is so prevalent is an indication that the fully-developed colour-sense is not of primary importance to man. If it had been so, natural selection would have eliminated the defect," or at least lessened the liability to its recurrence. It will scarcely be held that a fully-developed colour-sense is of more vital importance, in the struggle for existence, to women than to men. Perhaps, after all, it will be easier, at least, to take an æsthetic view of the question, and to admit that a full appreciation of all the glories of the solar spectrum is simply more demanded by the higher nature of the gentler sex, and that "the emotions excited by colour and by music, alike, seem to rise above the level of a world developed on purely utilitarian principles."

G. C. H.

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ART. XXXVI.—*A Handbook of Nursing for Family and General Use*. Prepared under the direction of the Connecticut Training School for Nurses, State Hospital, New Haven. 8vo. pp. 266. Philadelphia: J. B. Lippincott & Co., 1879.

A THOROUGHLY good book by an experienced and thoroughly sensible man, whoever he be that has written it. It provides not only for the now large and rapidly increasing class of intelligent professional nurses much good advice and instruction concerning nearly everything they will have to do, but it will be even a greater boon in many respects for those who are compelled to nurse their own families or friends, who desire to do the best possible service, but, from inexperience and want of teaching, know not what to do.

The book is divided into three parts: I. Medical and Surgical Nursing; II. Monthly Nursing; and III. Family Hygiene. Under the first head, not only every ordinary hint is given, but the nurse is taught how to use the thermometer, to take the pulse and respiration, what to observe about them, and the meaning of the chief deviations from the normal, and what should be observed and reported as to the urine. Special directions are given as to surgical nursing, as to nursing in certain medical diseases, as to the nursing of children, as to disinfection, and finally, rules of conduct in emergencies.

The second part is really not a handbook for nurses so much as for midwives, but is very good and plain. The third part is limited in its scope, but good as far as it goes.

In way of criticism, we could wish here for an earnest protest against school and family usages which are making more than half our educated people myopes. In the first part a useful addition would be an excellent plan for keeping a tumbler of cracked ice by a flannel funnel reaching nearly to the bottom of the tumbler, with a small hole to let the water out. Directions as to what should be observed and reported as to the feces are also quite as important as the urine. But a really serious fault is the direction (p. 41) for passing an enema syringe point: "Apply first in a backward direction and then forward a little, very gently." "Precisely wrong," as our old Professor of Latin used to say but too frequently to us. The direction of the rectum for the first inch from the anus is in a line from the anus to the umbilicus, and then curving sharply backwards it follows the concavity of the sacrum and coccyx. The directions should therefore read: "Pass the point into the anus for one inch in the direction of the navel and then swing it round so that it will point upwards and a little backwards, when it should be gently pushed on." For want of this simple knowledge on the part of both nurses and doctors, many a patient dreads an enema instead of finding it not only painless but a source of great relief.

W. W. K.

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ART. XXXVII.—*On the Therapeutic Forces; an Effort to Consider the Action of Medicines in the Light of the Modern Doctrine of the Conservation of Force.* By THOMAS J. MAYS, M.D., Member of Luzerne County Medical Society, etc. 8vo. pp. 143. Philadelphia: Lindsay & Blakiston, 1878.

FROM the remote period when physicians first began to think of the mode of action of remedies until the present, there have not been wanting theories and speculations concerning the *modus operandi* of medicines. But the adoption of late years of improved methods of study, marked by the introduction of instruments of precision into pathology and practical medicine by which morbid states and processes are clearly recognized, has finally established, with the aid of the accumulated testimony of experiments on living animals, a fund of common knowledge of the action of remedies, upon which it would seem that, now if ever, the foundation for a therapeutic science might be safely laid. Add to this the advance in physiology proper, more particularly towards an exact knowledge of the chemistry and dynamics of food, and a hint is obtained of the direction in which therapeutists have been seeking for the clue to guide them from the mazes of empiricism.

The works of Ringer, Bence Jones, Brunton, Wood, Fothergill, and others have contributed greatly to placing Rational Therapeutics upon a sound basis, and aided in creating a healthy sentiment against the tendency to an aimless administration of active agents and routine prescribing. Dr. Mays, in the first portion of this little volume before us, recites some of the experiments and processes by which the force-producing qualities of the different proximate principles have been ascertained and estimated, and associates with them Prof. Tyndall's conclusions from his consideration of Heat as a Mode of Motion, which, by the way, evidently furnishes the inspiration for the present work.

The study of the action of remedies would be much simplified by the general adoption of Dr. Mays's theory, which is "that our therapeutic forces, when