of given amounts of exercise upon the temperature, it is clearly of great assistance to have a knowledge of the effect of such exercise upon the temperature of the normal person.

REFERENCES.

- ¹ *Guy's Hosp. Rep.*, vol. lvii, and *Journ. of Physiol.*, vol. xxiii.
² *Journ. of Physiol.*, vol. xxxvi.

THE PRESCRIPTION OF GLASSES.*

BY

REGINALD A. MORRELL, M.R.C.S.ENG., L.R.C.P.LOND.,

CLINICAL ASSISTANT TO THE ROYAL WESTMINSTER OPHTHALMIC AND
 ROYAL LONDON OPHTHALMIC HOSPITALS; LATE OPHTHALMIC
 HOUSE SURGEON, ST. THOMAS'S HOSPITAL.

PATIENTS who seek the aid of a refractionist may be divided into two groups: (1) Those whose vision is not sufficiently acute for the requirements of their daily life; (2) those who seek relief from eye-strain resulting from abuse of their ocular muscles.

I propose to deal shortly with this latter group. Duty to the patient does not necessitate restoring normal visual acuity; this may be the result, but should never be the aim.

The indications are: That causes as well as symptoms require treatment. Such causes often lie in a breakdown of the patient's general health. The eye-strain from which relief is sought is but a group of symptoms. Both causes and symptoms require treatment, not the latter alone. Apart from questions of general health, organs that have broken down under stress, with muscles that are fatigued, and structures inflamed and painful, will have to be dealt with. The treatment proper to such conditions in the case of any other organ in the body should be pursued in the case of the eyes.

We should endeavour (1) to remove the cause by improving the general health, and (2) to keep the inflamed parts at rest. The second requirement may have to be enforced by the use of cycloplegics, but most usually it will be sufficient to prescribe such glasses as will relieve the ciliary muscles of the greater portion of their task, and afterwards to substitute graduated exercises for the ocular muscles. This ideal can be obtained by gradually decreasing the strength of the prescription, and so allowing more and more work to be done by the muscles themselves.

Here, then, we have two indications: First, that we should not in all cases rush into prescribing glasses, since rest may sometimes be better enforced by temporary paralysis of the ciliary muscles with cycloplegics. Secondly, the prescription should not supplant but supplement Nature's efforts, and eventually, by altering their strength, the muscles themselves should be left to do as much of the work as possible.

The first prescription should not be looked upon as permanent unless the underlying cause is to be considered as unvarying and incurable. An example of the effect of bad health on the ciliary muscle may be of interest.

A woman, aged 40, suffered from periodical attacks of traumatic neurasthenia, and when first she consulted me was given—

—2.5 Ds.
 —1.0 D. cyl.

for both eyes, and with these obtained vision $\frac{3}{60}$.

Six weeks after the first visit she came again to say that the glasses which had suited her admirably were now of little use. In this brief interval she had had another attack of neurasthenia, and was not yet convalescent. It was found that her vision was restored by reducing the spherical part of the combination from —2.5 Ds. to —1.5 Ds. In other words, her apparent myopia had been reduced by one dioptré. She was, therefore, given new glasses of this strength. As her health and strength improved the apparent myopia once more increased and, the new glasses becoming unsuitable, she reverted to her former prescription.

In September, 1910, she had another attack, and exactly the same phenomena were repeated.

There is a perfectly simple explanation for this case. When the patient was in good health the tone of her ciliary muscle caused the lens to be slightly convex, and, since the effect of a convex lens in front of a myopic eye

is to increase the myopia, her apparent myopia was more than her real myopia; but when her general health was below par the ciliary muscle shared in the general weakness and lost its tone. The result was that the lens lost its convexity, and so the apparent myopia became less, and the real or static refraction of the eye, which is a myopia of one dioptré less than the apparent myopia, remained.

The oculist must be cautious in prescribing glasses which are correct in the sense that they restore the normal visual activity to *each* eye. It must be remembered that the two eyes are required by Nature to work together in harmony.

The oculist must not only be painstaking and capable in what may be called the mechanical part of his work, but he must cultivate the art of judging with accuracy the patient's character. He should endeavour to picture to himself the pathology of the patient's condition and trace effects to their causes. Cases of refraction should not be classified and pigeon-holed with their definite treatment appended, but each case should be regarded as unlike any other and treated on its own merits. Two important questions must be answered: (1) Is the prescription to be considered as permanent? (2) Under what conditions are the glasses to be worn? If the patient can be restored to normal health and vigour, glasses may eventually be dispensed with or reduced in strength. Such is the logical conclusion. The practical result is often very different, for it must be remembered that it is much easier to become accustomed to the use of glasses than to discontinue their use. This fact should make us chary of prescribing glasses for constant use on every occasion. Unfortunately in many cases the existing cause—for example, neurasthenia—does not surrender to treatment, and here glasses in some form or another must be considered as permanent.

The answer to the second question may be decided on the patient's symptoms. For example, if a patient complains of headaches which are definitely brought on by near work, the indication is to assist Nature by prescribing glasses for near work.

It is impossible in a short paper to attempt more than to indicate a line of thought. It has been my aim to point out that, although in some cases it is sufficient to regard the eye as an imperfect optical instrument and one that can be improved by mechanical means, in others it must be regarded as an organ which has as great a claim to be treated on rational lines as any other.

THE ETIOLOGY OF IRITIS.

BY

REGINALD A. YELD, M.D.,

HAMPSTEAD.

WITH reference to the interesting article on the etiology of iritis by Mr. T. Harrison Butler in the *JOURNAL* of April 8th (p. 804), some details of an analysis of 159 cases from the ophthalmic wards of St. Bartholomew's Hospital may interest your readers.

The cases were all those of primary iritis occurring between 1883 and 1900. I found that it was extremely difficult in many cases to determine the cause from the notes, but it was possible to divide the cases up into rough groups as follows:

		Per Cent.	
Group I: Syphilitic—	(i) Certain	46	72 ... 45.28
	(ii) Probable	26	
Group II: "Rheumatic"	...	26	... 16.35
Group III: Gonorrhoeal—	(i) Certain	13	24 ... 15.09
	(ii) Probable	11	
Group IV: Toxaemic	...	16	... 10.06
Group V: Gouty	...	2	... 1.25
Group VI: Osteo-arthritis	...	2	... 1.25
Group VII: Obscure	...	17	... 10.6
Total	...	159	

I. Syphilis.

Syphilis accounts for from 45.2 to 28.9 per cent. of all cases, according as we include the less certain cases or not. One of the certain cases and five of the probable

* Abstract of a paper read before the Croydon Division of the British Medical Association.

syphilitic cases were congenital, without interstitial keratitis.

Investigation showed that an iritis may be undoubtedly syphilitic and yet present a local appearance resembling the so-called "rheumatic" type.

Syphilitic iritis may also be associated with severe pain.

II. "Rheumatic."

Careful analysis of the so-called "rheumatic" cases failed to show positive evidence of true rheumatism. In one case there was, however, some erythema nodosum combined with a very chronic synovitis of the knees, and in another a past history of chorea, and synovitis of the knees with the iritis. There was no evidence of morbus cordis. No case occurred in the course of rheumatic fever, and where iritis does so occur gonorrhoea or osteo-arthritis should be suspected.

I am convinced that there is undoubtedly a very striking connexion between diseases of the iris and diseases of the joints, and that the etiology of iritis is much the same as that of joint disease.

It would, therefore, seem possible that an iritis of rheumatic origin may occur, but examination usually shows that in cases so diagnosed the synovitis is of a chronic type, especially in the knees, and most probably of the nature of osteo-arthritis.

III. Gonorrhoea.

The great importance of gonorrhoea as a cause of iritis has only been emphasized of late years. I found in this analysis, which was made in 1901, that there was evidence that from 15 to 8.1 per cent. of all cases were due to this cause according as we include the less certain cases or not.

This type is especially prone to relapse. Relapse may occur soon after or long after the original attack, and may also occur after dilatation of a stricture.

All the patients were men.

IV. Toxaemic.

This group includes cases occurring in association with various diseases—for example, influenza (iritis a sequel in two instances), pyaemia, chronic nephritis, mumps, diphtheria, diabetes, bronchitis, tubercle, etc.

V. Gout.

Iritis certainly occurs in gouty subjects, and possibly 1 per cent. of cases may be due to gout.

VI. Osteo-arthritis.

Iritis certainly occurs with typical osteo-arthritis, and it is very probable that this group is really much more important than the so-called "rheumatic" group. From the notes, however, I could not find definite evidence that it accounted for more than 1 per cent. of all cases.

VII. Obscure.

The obscure cases were most common in women, and constitute 10.6 per cent. of all cases. Setting aside the possibility of syphilis and gonorrhoea, of which no trace of evidence was present, the ascertainable factors in this group could only be regarded as of secondary importance—namely, exposure to cold, starvation, exhaustion from hyperlactation, alcoholism, and errors of refraction.

Addendum.

Exposure to cold seems to be of some importance, the majority of admissions in non-venereal cases being in February. Some of the obscure cases may have been due to sepsis or tubercle.

The dentist was called in nine times in all the cases, and in three of these removal of carious teeth from the upper jaw on the same side as the iritis was of decided benefit. One of these was a syphilitic case, and the other two "rheumatic." It is interesting to note that Mr. Butler regards tubercle as a common cause of iritis. In the St. Bartholomew's cases only one was noted, and that was of a dubious kind.

Diagnosis of tuberculous disease generally has, of course, been much improved since 1900.

Memoranda : MEDICAL, SURGICAL, OBSTETRICAL.

FURTHER NOTE ON A CASE OF ACROMEGALY.

DURING the last ten years the man whose case was reported in the BRITISH MEDICAL JOURNAL of February 2nd, 1901, p. 270, has had fairly good health, although very gradually becoming weaker, so that he can now only crawl about with the aid of two sticks. He has become bent, with marked cervico-dorsal kyphosis. He eats well, and sleeps too well. He is losing weight, and has sunk from 5 ft. 10 in. high to 5 ft. 7½ in. The head measurements are now: Circumference, 25½ in.; from forehead to chin, 11 in.; from nape of neck to chin, over

nose, 25 in.; the nose measures 2½ in., the right ear 3½ in., and the left 3 in.; the lips when in a state of repose are ½ in. apart; the lower jaw protrudes 1½ in. in front of the upper. The teeth are mostly loose and are fast falling out. The upper portion of each ear tends to get flattened, hard, and board-like, especially on the right side. He keeps his mouth open owing to difficulty in breathing through

the nose. The eyelids are normal, but under each lower lid is a semilunar fold of tissue. The two hands measure the same, and each is 6 in. across the root of the thumb and 5 in. across the root of the fingers. When closed the hand measures 15½ in. round. The length of the middle (the longest) finger is only 3½ in. The pomum Adami is absent. Tongue not much affected. The lower lip is much enlarged and pendulous. There is no thirst and no polyuria. He is decidedly anaemic-looking, but without any yellow tinge. The protruding abdomen is tending to recede. He suffers from haemorrhoids.

The photograph was kindly taken for me by Mr. Kirby, of the West Ham Asylum.

Chadwell Heath.

T. REUELL ATKINSON.

ANTILYTIC SERUM IN THE TREATMENT OF CHRONIC GASTRIC AND DUODENAL ULCERATION.

THOUGH attention was drawn to the use of antilytic serum in the treatment of chronic gastric and duodenal ulceration by articles in the JOURNAL in 1908 and 1910, it does not seem to have become widely recognized. I therefore think that it may be of interest to quote a case recently under my care, in which, as far as it is possible to tell in an individual case, the serum was the direct means of saving life.

A man, aged 63, suffered some eight years ago from symptoms of duodenal ulcer; they passed away under treatment. He remained well until five months ago, when he had an attack of gastric influenza, accompanied by acute vomiting, which lasted twenty-seven hours. At the end of this time he vomited a considerable quantity of blood. Haemorrhage continued at intervals for three weeks, when he was seen by both Dr. Goodhart and Sir Thomas Barlow, who confirmed the diagnosis of haemorrhage from an old duodenal ulcer. The haemorrhage then became constant, and continued so for another three weeks. Every drug and other treatment was tried, but with no effect. When the patient was apparently moribund, I started the antilytic serum (prepared by Allen and Hanburys), giving it by the mouth in full doses. Within a few hours the haemorrhage completely ceased, and has