Dr. REED said he had been treating one case at the Dispensary.

Nitroglycerine in Epilepsy.—DR. F. W. CAMPBELL spoke of the continued good results he is having with nitroglycerine in the treatment of epilepsy. None of the patients whom he has so treated have been entirely cured, but with all the attacks are milder and much less frequent. The usual dose which he gives is one drop of a one per cent. solution three times a day.

Dr. TRENHOLME asked for the modus operandi of this treatment.

Dr. CAMPBELL said that it was not easy to say how it acted; but if it is true, as some authorities affirm, that with epileptics there is anæmia of the brain from contraction of its arteries, then we can see how the nitroglycerine is useful, knowing, as we do, its action in dilating the blood-vessels of the head, as does smelling nitrite of amyl.

Dr. HY. HOWARD congratulated Dr. Campbell on his success in this treatment of epilepsy, and said that the Germans classified the forms of epilepsy as follows:—1st, Those due to contraction of the cerebral vessels from irritation to the vaso-motor nerves. Here bromide of potassium is very useful. 2nd, An abnormal condition of dura mater. Bromide useless. 3rd, Due to irritation of the anterior pillars of the spinal marrow. Ether spray best for this. 4th, Lesions of different parts of the brain or cord. Of course the difficulty is to be sure of the cause.

Progress of Science.

PROGNOSIS IN HEART-DISEASE—MITRAL INSUFFICIENCY OR REGURGITATION.

An abstract of a lecture delivered before the Harveian Society of London, By W. A. BROADBENT, M.D., F.R.C.P. Lond., and published in the *British Medical Journal.*

The evidence of regurgitation through the mitral orifice is a systolic murmur in the region of the apex, usually heard also to the left of this spot towards the axilla, and often in the left interscapular space, sometimes upwards round the outer side of the mamma. The only murmurs likely to be mistaken for that of mitral regurgitation are a systolic aortic murmur conducted to the apex, a tricuspid regurgitant murmur, and a spurious murmur produced by compression of the edge of the lung. These sources of error being eliminated, a systolic mitral murmur means regurgitation from the ventricle into the auricle.

The causation, however, of mitral incompetence is most varied, and the range of possibilities extreme.

There are, first, the so-called hæmic murmurs of anæmia and chlorosis, of convalescence from acute disease, of some cases of chorea, and of cardiac weakness. It is to these that Dr. McAlister's explanation of mitral reflux, without disease of the valves, applies. The complete closure of the orifice is not effected merely by the floating out of the valvular curtains, but is aided by a great constriction of the orifice, which is part of the ventricular systole. When this is imperfectly performed, the valves do not quite guard the opening, and allow regurgitation.

There is no direct relation between the degree of anæmia and the occurrence of mitral regurgitation; there may be no reflux in the worst cases of anæmia of whatever kind. The state of the blood constituting a predisposition, the immediate cause may be over-exertion, or perhaps climate, or worry. But a direct cause of dilatation of the left ventricle exists in many cases of anæmia, viz., unduly high arterial tension from resistance in the peripheral circulation. This may not only give rise to temporary insufficiency of the mitral valve, but may possibly be the cause of the organic change in it, which Dr. Goodhart has shown to be a probable result of anæmia in many instances.

This "curable mitral regurgitation," borrowing the term from Dr. George Balfour, can usually be recognised by means of the history and condition of the patient, but the character of the murmur may be of assistance; it is usually smooth, accompanies the first sound, instead of extinguishing or replacing, it and not unfrequently it is post-systolic rather than systolic. It is sometimes said that a hæmic mitral murmur is not conducted towards the axilla; but this must not be altogether relied upon.

A temporary mitral regurgitation is not uncommon after acute disease, and may follow acute rheumatism, when it is liable to be taken for the effect of endocarditis.

A mitral systolic murmur during chorea may be either the result of functional derangement or of organic disease of the valves.

In middle age, or in advanced life, mitral regurgitation, without actual change in the valves, is common, and may be induced suddenly by over-strain or illness, or come on insidiously. Sometimes the orifice is of the normal size, at others enlarged; and it is often impossible to say what its exact condition is, or to distinguish between such cases and others in which the valves are damaged. When the orifice is unduly large, there will also be dilatation of the ventricle. The character of the murmur, and especially the presence or absence of the first sound, may be of great service in deciding whether the reflux is considerable or small in amount.