media in common use in the routine investigation of general medical cases. The results were communicated in my paper.

The *first* authority consulted saw much of interest and value in the method because for the first time it yielded on primary culture a film which closely approximated to the original fæcal smear. The *second* was equally interested and very kindly sent me films which he himself prepared confirming my results, with a suggestive commentary. The *third*, a distinguished authority on streptococci, showed a similar interest in the facts, and was of the opinion that further investigation would show the method to be a valuable one for a study of the life-history of the streptococcal group of organisms. The *fourth* and *fifth*, as a result of independent investigation, also confirmed my main conclusion. They showed an interest, appreciation, and willingness to coöperate in investigating, from their own standpoint, the observations which the clinician makes in the course of the routine investigation by simple bacteriological methods of the cases under his care. In the case of the *sixth* I failed to secure either interest or willingness to test the value of the observations made. He expressed many views similar to those given in Dr. Logan's letter; these appear to me in no way to invalidate the accuracy of the facts or conclusions drawn from them.

One word in conclusion. If many problems that are still awaiting solution in regard to the relationship of bacteriological infection or intoxication from the bowel are to be solved, the solution will, in my judgment, only be effected by the cordial coöperation of clinicians who have a slight knowledge of simple bacteriological routine, and are willing and anxious to work in coöperation with expert bacteriologists. My paper was intended as a contribution in this direction. It has been a great pleasure to me, as a clinician, to find so many bacteriologists willing to coöperate in elucidating problems common to both.

I am, Sir, yours faithfully,

CHALMERS WATSON, M.D.

Edinburgh, July 29th, 1922.

## BUTYN VERSUS COCAINE.

*To the Editor of* THE LANCET.

SIR,—The use of butyn as a local anæsthetic appears to have aroused interest, in more than one branch of surgery, as an alternative for cocaine.[1] Further experience convinces me that it is something more than an alternative, for its action is superior in several respects. A comparison of butyn with cocaine shows an advantage for the former in all respects. The desired effect is attained with a smaller quantity of the drug, with a quicker action, and more profound result. The accommodation is not paralysed and consequently the pupil is not dilated. Butyn does not appear to have any toxic effect, and it is never injurious to the cornea.

For the removal of foreign bodies from the cornea, a drop of 1 per cent. solution almost immediately produces anæsthesia. For cataract operation a 2 per cent. solution preceded by a tablet of adrenalin (0·0006 g.) is ideal. The absence of dilatation of the pupil justifies its use in glaucoma as an analgesic in combination with eserine or pilocarpine. For glaucoma operations it can be safely used to produce local anæsthesia. In the treatment of keratitis, in which cocaine is liable to produce corneal exfoliation, butyn can be instilled without anxiety. Operations on the muscles may be performed with infiltration anæsthesia, a 0·5 per cent. solution being employed; 1 c.cm. of the solution is used or even more in these cases, and the reports from America are highly satisfactory. For cataract operations and for iridectomy I have used a 2 per cent. solution of butyn in place of cocaine in 20 cases and have always been well satisfied with the action of the drug. In each case the instillation was preceded by a tablet of adrenalin.

For nose, throat, ear, and genito-urinary operations 2 per cent. to 5 per cent. solutions are recommended, according to the depth of the anæsthesia desired. The less toxic effects of butyn compared with cocaine enable the surgeon to use it without fear in these cases. It can be sterilised by boiling without affecting its anæsthetic qualities.

In dental surgery butyn is extensively used in America both for infiltration and conduction anæsthesia. Chlorides should not be used with butyn as they cause the latter to crystallise out of solution. No toxic effects have been observed, either in experiments on animals or in the clinical use of butyn.

In conclusion, not only in ophthalmology but also in all other branches of surgery the use of butyn appears to be co-extensive with that of cocaine. If after weighing the two drugs in the scales of experience it is found that we have a synthetic super-cocaine which renders the old and hitherto essential drug superfluous, our patriotic and social duty is obvious. For if medical science can banish cocaine from the Pharmacopœia, without loss to the healing art, a step will be taken towards the elimination of the drug-trafficker and the rescue of his victims.

I am, Sir, yours faithfully,

Bath, July 31st, 1922. W. M. BEAUMONT.

[1] British Journal of Ophthalmology, July 1922.

## THE WORKS OF PURKINJE.

*To the Editor of* THE LANCET.

SIR,—My attention has only just been called to a letter on Medical Libraries in THE LANCET of May 6th (p. 916). The two volumes on the physiology of vision by Purkinje there mentioned by Mr. V. Plarr as being in my possession are "Beiträge zur Kenntniss des Sehens in subjektiver Hinsicht," 1823, and "Neue Beiträge zur Kenntniss des Sehens in subjektiver Hinsicht," 1825. These books are extremely rare as I am aware of only one other set, which is in the library of the Ophthalmological Society in Vienna. The librarian told me that his copies were the only ones in existence, and I was 20 years before I could obtain mine. For this reason the work of Purkinje is not sufficiently known, though his name is associated with so many physiological and anatomical facts. On account of the exceptionally fine scientific work in these volumes it would be of advantage if they could be translated into English or copied as Mr. Plarr has suggested.

I am, Sir, yours faithfully,

July 28th, 1922. F. W. EDRIDGE-GREEN.

## THIRST AND RECTAL SALINES.

*To the Editor of* THE LANCET.

SIR,—It has struck me as a student of medicine that the administration of a solution of salt and water—roughly a teaspoonful to a pint—would probably be followed by thirst. That is generally the complaint of dehydrated patients and those who have had a general anæsthetic. A personal experiment may perhaps be of interest to your readers. I drank half a pint of saline every half-hour for five times, and the sixth glassful after an interval of an hour. Just before it was time to take the fifth glass I began to feel thirsty, and had to drink extra water before the sixth. I was more thirsty after I had stopped taking the saline about two or three hours. When we are thirsty we drink ordinary water; there does not seem to be any reason why ordinary water should not be given per rectum instead of salines, and achieve the object with much greater comfort to the patient.

I am, Sir, yours faithfully,

Edinburgh, July 28th, 1922. DOREEN STRANGER.

MANCHESTER AND SALFORD SUNDAY FUND.—The sum available this year for distribution by the committee of this Fund reached £11,924, and was distributed amongst the 20 local medical charities in amounts ranging from £3103 to the Royal Infirmary downwards. St. Mary's Hospitals received £1315, Ancoats Hospital £1278, Children's Hospital £1100, Salford Royal Hospital £1019, Royal Eye Hospital £964. The Ear Hospital received £148, the Hospital for Skin Diseases £138, and the Dental Hospital £118.