contagion by being hermetically sealed, either by such an apparatus as Buller's shield or by a carefully adjusted bandage. Care must be taken in every case of conjunctivitis, whatever its nature, that the friends and attendants of the patient are not infected. The methods by which this can be done are now so well known and, I hope, so generally practised, that there is no need to insist upon them here.

I shall just refer very briefly to one other point, and it is that the teachings of modern bacteriology give us important indications as to when an eye should be bandaged, or rather as to when it should not be bandaged. Formerly it was the custom to apply a compress and bandage in the treatment of almost every case of corneal ulceration. The bandage was supposed to do good first by keeping the eye at rest, secondly by excluding cold, and thirdly by giving the ulcerated surface a certain amount of support. It is obvious on the slightest consideration that a bandage applied only to one eye will not keep it at rest, for, notwithstanding its application, the eyeball will move freely along with its fellow; all that the bandage does in this respect is to subject the eye in its movement to a greater amount of friction. A bandage may or may not keep out cold; I have never tested the difference of temperature between the skin under such a bandage and the same part of the skin without it, but one thing it certainly does is to retain any septic secretions, and consequently it simply foment the organ with its own septic discharges. I admit that sometimes a bandage is of use in preventing an ulcer from becoming ectatic, but apart from this limited use bandages seem to me to be quite inadmissible in the treatment of corneal ulceration. In most instances they are productive of harm. If the eye must be protected, then let it be by a shade or by a pair of smoked glasses. If dark glasses are to be used for the purpose of diminishing the amount of light which enters the eye, they should be of London smoked glass and not blue. These latter allow the actinic rays to pass freely, and hence, if it be desired to keep the chemically strong rays out of the eye, it is a mistake to tint the glass with blue or purple. At the same time, cobalt-blue glass, or the more recent amethyst glass, while allowing the light of short wave length to pass, will largely exclude the heating portions of the spectrum. London smoked glass diminishes both sets of rays.

It would therefore seem that the former practice of fomenting eyes should be discarded; presumably nothing more aids the development of micro-organisms than a moist heat, and I have seen corneal ulcers made very much worse by the applications of fomentations. So far as my own practice is concerned, I employ them only for two purposes, one of which is to promote suppuration in the early stages of panophthalmitis, and the other to relieve the pain of rheumatic iritis.

A CASE OF ACUTE ENDOCARDITIS DUE TO THE MICROCOCCUS GONORRHOEAE.

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THAT endocarditis might occur in the course of gonorrhoea has been known for years. It is only within recent times, however, that it has been possible to determine the exact relation of the two affections. Many investigators regarded the occurrence of acute endocarditis during or shortly after an attack of gonorrhoea as a secondary infection—the result of the entrance of staphylococci or streptococci into the circulation through the urethral lesion. The improvement in bacteriological technique has resulted in more definite information regarding such cases of endocarditis. It has shown that the endocardium may become infected directly by gonococci themselves.

The determination of this fact is of great moment in regard to the infectious nature of the micrococcus gonorrhoeae. A few years ago it was almost entirely associated with infective urethritis. To-day, however, with a more complete knowledge of this micro-organism and the effects which it may call forth in the human body, our ideas have altered considerably. Hitherto the gonococcus has been generally regarded as a micro-organism limiting itself to mucous membranes. It was only under exceptional circumstances that it penetrated into the deeper-lying connective tissue structures. Within recent years many proofs have been forthcoming establishing the possibility of the gonococcus reaching the lymph channels or the blood vessels and thereby being trans-

ported to other parts of the body, and capable of setting up metastatic disease. Its presence in the lymph apparatus has been shown by Columbini,¹ Uysing,² and others, while its demonstration in the blood stream has been accomplished by several observers, notably Wertheim,³ Thayer and Blumer,⁴ Unger and Proschaska.⁵

The affection of the heart by the gonococcus has been a subject of much discussion. Since its demonstration by Lenhart,⁶ Thayer and Blumer,⁷ and Unger⁸ but few cases have been reported. Recently papers on this subject have been published by Finger,⁹ Leyden,¹⁰ Michaelis,¹¹ Carageorgiadès,¹² and others, amplifying the earlier investigations. In view of the small number of cases so far reported I feel justified in putting my case on record, and all the more so owing to the fact that the condition was only discovered *post mortem* in a perfectly fresh cadaver. The following is a brief record of the case:

The patient was an unknown Chinese female, aged 38 years; she had been a prostitute. No *ante-mortem* history of the case was ascertainable.

The body was brought to the public mortuary, Hong Kong, about two hours after death, and an autopsy was performed at once. *Post-mortem* lividity was pronounced on all dependent parts and rigor mortis was severe. There was no evidence of eruption or haemorrhagic extravasation into the skin. The pericardium was normal. The sac contained 1½ oz. of clear serous fluid. The epicardium was studded with numerous small haemorrhages. These were specially abundant along the course of the main coronary arteries and on the posterior aspect of the left ventricle.

On opening the heart the aortic valve was found diseased. It was studded with delicate granulations, especially on its ventricular aspect. The process extended for a short distance over the neighbouring endocardium. The granulations were most pronounced along the line of maximum contact where there had been the greatest friction. They were pinhead in size, extremely soft, greyish-pink in colour, and translucent. In one or two small areas the proliferation of tissue was more extensive, and covering this was a considerable amount of necrotic tissue admixed with blood coagulum. The valve itself was considerably thickened, owing to the great amount of round-celled infiltration and the activity of the connective tissue. The endocardium surrounding the focus of disease was opaque and slightly rough in patches. The other valves were competent. The other organs, especially the spleen and kidneys, were deeply congested.

So far as the genital apparatus is concerned, the vagina was thickened and hard, and its squamous surface rough and covered with patches of papillary thickenings of connective tissue. There was papillary erosion of the cervix uteri, with the presence of a thin pyoid secretion. The endometrium was thickened and warty, and the cavity practically in a condition of pyometra.

Bacteriological Examination.

Microscopic preparations made from the aortic valve showed countless oval-shaped diplococci, which did not retain the stain by Gram's method. Suspecting, therefore, the presence of gonococci, cultures were made with fluid and solid blood serum, human blood agar, ordinary agar, gelatine, and bouillon. Petri plates were also made. A coccus morphologically identical with the gonococcus was obtained from the cultures on blood serum and blood agar. Nothing definite was obtained from the inoculated tubes containing ordinary nutrient media. The coccus isolated from the serum cultures did not stain by Gram's method. This micro-organism was absolutely non-pathogenic for small animals.

A similar bacteriological examination was made of the genital tract. Microscopic preparations showed hordes of micro-organisms, many of which stained by Gram's method. Plate cultivations were resorted to, but with no definite result.

Clinically and pathologically, however, the condition of the genital tract was diagnostic of the effects of gonorrhoea. The negative result obtained from the genital organs was due to duration of the infection and the presence of innumerable other micro-organisms, the growth of which rapidly masks the true bacteriological nature of the lesions. The gonococcus was not recovered from any other organ or tissue. Histologically the aortic valve showed the usual inflammatory changes and necroses.

This case is of interest from several points of view. It is an additional proof of a direct infection of the endocardium by the gonococcus. The subject of the disease was an old prostitute, presenting well-marked pathological changes throughout the genital tract. The lesions were clinically very suggestive of old gonorrhoeal infection. As is frequently the case in such conditions, the specific micrococcus could not be demonstrated owing to the presence of many other micro-organisms. Again, the aortic valve of the heart was the seat of the endocarditis, and the inflammatory process was of a distinctly malignant character. Such a condition of affairs would appear to be the most frequent in gonorrhoeal endocarditis. Stengel has reported fifteen cases of the disease; all were of the malignant type, and in eleven of the cases the lesions found were in the aortic valves.

With the repeated publication of cases illustrating the powers of the micrococcus gonorrhoeae of setting up

metastatic disease, the older views in regard to the infective powers of the micro-organism must be set aside. The gonococcus must be regarded as a micro-organism capable under certain conditions of setting up widespread disease in the human body. It may be regarded as an occasional exciting agent of septicaemia, but, just as in the case of other micro-organisms, the gonococcus in the production of disease shows preference for certain parts of the body—for example, the synovial membranes of joints, tendon sheaths, and the valvular apparatus of the heart. The affection of the heart by the gonococcus has been the subject of much discussion, more particularly in regard to the frequency of its occurrence. Clinically the condition is regarded as rare, and even *post mortem* the exciting agent may be lost sight of. It is true that the demonstration of the gonococcus is difficult in many cases, but with the routine examination of the blood in all cases of endocarditis *ante mortem*, as well as the bacteriological examination of the valvular lesion *post mortem*, cases due to the micrococcus gonorrhoeae ought to be brought to light in greater abundance in the future.

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An Address

ENTITLED

AFTER TWENTY YEARS.

Delivered before the Walthamstow Division of the Metropolitan Counties Branch of the British Medical Association.

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AFTER twenty years or more spent in the practice of a profession such as ours, and after having passed what our dear old friend Oliver Wendell Holmes calls "the five-barred gate," one gets into the habit of spending more time than formerly in looking backward. The younger man when he meditates generally looks forward. It is good, no doubt, to keep an eye in both directions, but belonging as I do to the former class I am getting to think that, on the whole, looking backwards is the more profitable, and one reason is because I believe that it adds so largely to one's experience; for experience, I may perhaps remind you, does not only consist in receiving impressions from without and recording them; not only in being acted on and in acting; but largely in reflecting, comparing, and judging of the effect of those impressions and actions.

The life of the family doctor has in it undoubtedly much which cannot enter into the lives of those who follow other callings than ours, and the first thing I have to say about that life is, that it has brought me, as I am sure it has brought you, much pleasure and enjoyment, much satisfaction and reward, not of the material kind alone but of that kind which is more honourable and in the end more valuable, the assurance that one is doing something (little enough it may be, but still something) to relieve suffering, and to increase the general fund of happiness in the world.

The pathway has not all been smooth. It never is, we must have our disappointments and periods of depression, for life at all times, and especially a life like ours, is a continual conflict, of good with evil, of health with disease, of truth with falsehood, and there are times when, in spite of our best endeavours, the enemy seems to be getting the upper hand—times when our mistakes are only too well remembered, when our sense of failure is hardly counterbalanced by the feeling of having done one's best, the awful feeling that one has not done the right thing in some particular circumstance—such experiences come to us all. But, looking over these twenty years, it can certainly be said that on the whole we are advancing. Our knowledge of disease and our power to cope with it has increased immensely; indeed, our whole conception of some diseases has entirely changed, and our methods of treatment, preventive as well as curative, based upon our increased knowledge, have altered for the better.

But not only this—there is an advance all round. The

scientific spirit—that spirit of careful, patient observation, of induction of principles from facts, which pervades all our work—is more widespread; it more and more influences every phase and method of life—sanitary, social, educational, and even political.

It is more generally recognized that a spirit of inquiry, a healthy scepticism, necessarily precedes increased knowledge. Hence there is more toleration; people are less under the influence of dogma and superstition; there is a greater inclination to explain things on natural rather than on supernatural grounds. This is largely due to the spread of education; and I do not wish to claim more than is our due in that direction. But I venture to think that our profession, mixing as it does closely with all classes of the community, has had a not inconsiderable share in bringing it about. It is part of our work to do this—to advance in any way we can the knowledge of the truth in all things; our duty, in short, is not only to try to make the world healthier but better. Better, because healthier.

One of the great men of our profession, who died only last year (Sir John Simon), was said to have been the means of saving more lives than were lost by us in all the wars of the last century; but his aim, like ours, was not only to save, but to improve the conditions of life. And that this aim has to some extent been attained—that the conditions of life generally, and especially of the great masses of the people, have improved during the last twenty years, no one can deny. And, moreover, may we not say that the nature of our work is such that there is no room for anything that is unreal or untrue in our own lives, and that if we do our work properly and live our life well, we are not only doing some good to our fellow creatures, but we are raising ourselves to a higher level, getting a firmer grasp of the truths of Nature and of human life, and while mixing, as we necessarily must, with much that is bad, vicious, and unclean, we are learning that there is always in every thing and every body something that is good, and we appreciate that it is that something which it is most worth our while to seek out and cultivate, because it is only by encouraging the development of the good that we can hope to counteract the bad.

We are sometimes told that our race is dying out, that the family physician is becoming extinct, that he is being gradually elbowed out by the consultant, the specialist, or the club doctor. This would mean, if it were true, an entire alteration in the general feeling of the public towards the great mass of our profession. I do not believe that it is true; but the fact that such an idea may be even mooted should make us consider if there may not be an element of truth in it. In a book published last year called *Doctors and Their Work*, Mr. Brudenell Carter remarks that "the medical profession, apart from a few distinguished individuals, does not hold, in the estimation of the public anything like so good a position as that which it held fifty years ago." Such a statement is obviously difficult to prove or disprove. I cannot believe it, but I doubt if it is worth while to spend time in discussing it now.

There can be no doubt, however, that the conditions of life and of private practice at the present time in and around London, and I presume other large towns, do tend to make the bonds between doctor and patient less close, more easily severed than was formerly the case. Whether, among other things, this is due to the sceptical habit of mind to which I alluded, or to the spread of education, or rather that which goes by that name, I cannot say. I am disposed to think that there is less inclination to be ruled by authority in matters of health, as in other matters, than used to be the case; people do not put themselves so unreservedly in the hands of the doctor as they did. They wish to judge for themselves. They have no conception of what is meant by a medical training. They do not understand that such a training is necessary to enable them to enter fully into the consideration of medical questions, questions some of which are amongst the most difficult that the human mind has to deal with. This is part of one side of this question, but there is the other side, and it is possible that the fault is to some extent at least our own. That the reason why doctors and patients are less united than they used to be may be because we have not done our best to cultivate in ourselves the good traits of the old family physician, his tact and patience, his kindness of heart and broad intelligence, his humility in the face of difficult questions, combined with the sagacity, readiness of resource and decision of character for which he was noted, all of which enabled him to enter into the troubles of his patient from every side, and to treat him not only by the light of science with which