habitat. Sattler, who has carefully examined the micro-organisms of the lacrymal sac,⁴ is of opinion that Panas's solution does not ensure antisepsis. He recommends the biniodide to be dissolved in an aqueous solution of corrosive sublimate (1 in 5,000), which is a powerful antiseptic. But if we take the precaution to disinfect the lacrymal sac and the ciliary follicles—and every day more and more care is exercised on this point—we shall scarcely need a germicide of great power, and it may be sufficient to thoroughly wash out the conjunctiva with a solution that is aseptic, and not actually antiseptic.

My own practice, lately, has been to wash out the lids thoroughly with the biniodide solution, and carefully to apply iodoform ointment to the wound immediately on completion of the operation. So far so good. But are there any drawbacks? It seems to give rise to a cloudiness of the cornea in the neighbourhood of the wound. In one case—an old man—it spread downwards, and entirely covered the pupil, rendering the removal of the cataract rather a nugatory proceeding as regards vision. In the second eye the opacity was limited to the immediate neighbourhood of the wound. It has never exceeded this dimension, except in this one eye. At first I regarded it as keratitis, but I think now it is really due to the direct action of the mercury on the elements of the cornea. Cucaïne, I fear, aids this absorption by its desquamating action. I have great hopes that this effect is merely temporary. In the case of the old man the opacity is slowly clearing away. Still it is a point to be borne in mind, and I shall certainly hesitate considerably before I employ a stronger mercurial antiseptic in conjunction with cucaïne.

DISLOCATION OF THE LENS.¹

By ANDERSON CRITCHETT, M.A. CANTAB.,
Ophthalmic Surgeon to, and Lecturer on Ophthalmic Surgery at,
St. Mary's Hospital.

THIS accident, though not one of extreme rarity, is yet sufficiently uncommon to justify ophthalmic surgeons in placing their experiences of it on record; and as within the last two years, I have met with three interesting cases of lens dislocation in my own practice, I venture to bring them before the notice of this Section.

The first case was that of a young barrister, aged 24, who was highly myopic, and who some ten years previously had, while practising gymnastics, dislocated the lens in his right eye.

An attempt was made to remove it, but the operation was unfortunately not successful. The patient, by cautious use of the remaining eye, was able to complete his education both at school and college, and was careful to avoid any sudden or violent physical exertion; but a few days before I first saw him in September, 1884, he had, whilst fishing, been tempted to jump suddenly off a bank to secure a particularly fine specimen of the finny tribe, and at the same moment he felt that something had given away in his left eye. I saw him four days after the accident, and found the lens had become dislocated forwards into the anterior chamber. The patient could still read Jaeger 2, but the tension had increased, and after a consultation with Sir William Bowman it was decided that the lens must be removed.

When the patient had been placed under the influence of an anæsthetic, I passed a fine needle through the substance of the lens, and it was held there by my colleague, Mr. Juler, while I proceeded to make the necessary section.

This latter was not very easy to accomplish, because the lens occupied the whole of the anterior chamber, but I used a very narrow Graefe's knife, and completed the latter half of the section by a series of small cuts, after the manner of the late Mr. Streatfeild.

I did not attempt to perform iridectomy, but at once inserted a spoon beneath the lens and extracted it, Mr. Juler withdrawing the fine needle as soon as my traction instrument was *in situ*. Very little vitreous was lost, the edges of the wound were seen to be in apposition, and the lids of both eyes were kept closed with small strips of plaster. These latter were applied for more than a fortnight, and I did not suffer the eyes to be open for eighteen days, when I was pleased to find that perfect union had taken place, and a few weeks later the patient was able, with suitable lenses, to see § and read Jaeger 1.

⁴ He finds two varieties of pyococcus: filogenus, staphylococcus, which appeared to induce keratitis and iritis, pneumococcus, and six species of bacteria.—*Year-Book of Treatment*, p. 272.

¹ Read in the Section of Ophthalmology at the Annual Meeting of the British Medical Association in Brighton.

The second case was that of a young gentleman, aged 17, who was brought to me by Mr. Sydenham Knott.

Whilst he was amusing himself with chopping wood, a log flew up and struck him violently on the right eye. When I first saw him there was a little blood in the anterior chamber, and the lens was seen to be dislocated backwards. There was such severe pain, and the eye had been so seriously injured, that I doubted whether it could be saved; but I sent the patient to Mr. Hulke, who suggested that I should make an attempt to extract the lens, and, if that were unsuccessful, I must enucleate.

Mr. Sydenham Knott administered ether, and I made a corneal section upwards. As the upper edge of the lens was depressed backwards, some difficulty was experienced in passing a spoon beneath it, but by introducing the latter at the outer angle of the section, and sliding it under from the outer side I succeeded in extracting the lens. There was a considerable loss of vitreous, but the lids were supported by strips of plaster, as in the first case, and the patient made an excellent recovery, but there is a large atrophic patch near the macula, and, although the hands of a watch can be seen eccentrically, the sight must always remain very imperfect.

In the third case, a gentleman, aged 29, received a severe blow on his left eye from a cricket-ball, which dislocated the lens outwards and slightly upwards, so that it was evidently hinged upon its lower margin, because, whilst the eye was under ophthalmoscopic examination, the lens would suddenly fall downwards into something like its natural position, and then a few moments later a slight movement on the part of the patient would throw it again into its new resting place.

The patient consulted Mr. Power soon after the accident, and, as the eye was free from pain, and the tension fairly normal, I think that gentleman was justified in advocating a Fabian course of inaction, but soon after I first saw the injured eye it became so rapidly hard that I felt that an attempt must be made to extract the lens, and this opinion was confirmed by Sir William Bowman.

It will at once be acknowledged that, from an operative point of view, the case was one of exceptional difficulty, owing to the fact that the lens was entirely out of sight.

Sir Walter Scott has sung of—

“That stern joy which warriors feel
In foemen worthy of their steel;”

but I confess that I approached the operation with some misgiving as to the result. Ether was administered, and I made an incision with a very broad keratome at the inner side of the cornea, and there was an immediate gush of vitreous, but I at once passed a Taylor's vectis in the direction in which I hoped to find the lens, and as I withdrew the instrument I was delighted to find that I had secured the object of my search. Plaster was applied over the lids, as in the former cases; the patient made a slow but good recovery, and with the aid of a lens can see the time by a watch correctly. In future, I shall be inclined to use the vectis for removing dislocated lenses in preference to the spoon, because the former allows the lower portion of the soft lens to sink through the aperture in the wire loop, and there is less chance for the lens to slip away during the process of extraction.

Since I commenced to write the present paper, my friend Dr. Agnew, of New York, has kindly sent me an account of a new instrument that he has designed for the removal of dislocated lenses, and to which he has given the name “bident.” Dr. Agnew says: “It consists of two ordinary fine, straight, delicately-pointed, cataract-needles, about six-eighths of an inch long, fixed parallel at a distance a little less than an eighth of an inch apart. These needles are united at their proximal ends by a projection which is flat, and otherwise so sharpened and roughened as to be adapted to the grasp of a holder.”

He passes this instrument downwards behind the lens, and, bringing the latter upwards into the anterior chamber by depressing the handle of the bident, he passes the needle-points through the sclerotic in the other side of the globe, and leaves the instrument *in situ* while he completes his operation.

I confess that I am, as a rule, averse to running even fine needles through the ciliary region, but time will prove the safety or danger of this new operation; and Dr. Agnew certainly deserves our cordial thanks for his ingenious endeavours to solve one of the difficulties which beset us in dislocation of the lens.

The experience of the last few years, both in general and ophthalmic surgery, has shown us that operations which were formerly deemed hazardous and unjustifiable may now, by the light of modern knowledge, be safely and successfully accomplished; and I have good hope that we may be able to bring the removal of dislocated lenses into this category.