Here, again, you see the excluded peninsula within the county bounded by the included peninsula outside the county; Brixworth and Kettering rejoicing in being able to defy the Local Government Board, and poor Mr. Haviland having to travel over a most extensive and impracticable circuit imperfectly supplied with railways. He is to receive for superintending this monster district only £50 *per annum* more than Dr. Saunders for a comparatively small district cut out of two counties, Middlesex and Hertford. Yet Dr. Saunders is by no means overpaid by a salary of £750, for his duties take him from the immediate suburbs of London to a distance of nearly forty miles from it.

Look again at these health-officers' circuits (Map I and II) extending into two of the great registration divisions of England. Counties we know; boroughs we know; unions and registration districts, and even registration counties, we begin to understand; but what are these? Are we have a new order of divisions in England for medico-sanitary purposes? The Registrar-General says that we have by far too many conflicting divisions already. These new districts, you will agree with me, could hardly be more confusedly arranged or absurdly shaped had one of the despised *medical* inspectors under Mr. Simon contrived them. Yet these are the only gentlemen connected with the Local Government Board who can bring any special experience to bear on the question. They "know practically what is the work of a health-officer, how often he should visit localities, what investigations he should make, by whom he should be supplied with facts and materials, what should be the purview and particulars of his reports, what time he should devote to a given population," etc.

The results of Mr. Stansfeld's *coup d'essai*, it has been well said (*Practitioner*, May 1873, page 321), "are such as might have been foreseen, where a number of gentlemen were set at large to educe sanitary practice out of their own consciousness."

But, indeed, it is not fair to blame the legal and military gentlemen who have immortalised their fame as sanitary organisers. The fault was not so much theirs as of the Act itself. Grievous defects and errors are inseparable from attempts to procure spontaneously that co-operative action which is not obligatory by law on the districts proposed to be combined. Without a compulsory enactment and a good intermediate authority to carry it into effect, the wisest and most skilful inspectors cannot be reasonably expected to force upon reluctant districts a proper combination, as regards area and population, for a chief health officer. A measure framed on the assumption that several constituted authorities—jealous of their independence, tenacious of power, and ignorant of the matters to be administered—would generally yield to persuasion, was unstatesman-like, and has deserved its fate.

The present system is organically rotten. It has no element of stability or order, and offers the smallest prospect of efficiency. It remains to be seen whether the able and distinguished gentlemen who have condescended to accept office for a short time under it can redeem it from utter obloquy.

If Mr. Stansfeld's Select Committee and its probable successors—a Boundary Commission and a County Government—should succeed in reducing the present chaos into order, after years of annoyance, needless trouble, and great outlay, the country may ultimately recover from the disorganisation and local anarchy which have been caused by the Sanitary Commission and the Local Government Board. And in that case Mr. Stansfeld's "repentance" may not have come too late. (*BRITISH MEDICAL JOURNAL*, May 17th, 1873, p. 363.) Although, for the present, he limits it to one of his errors, I am not without hope of his thorough conversion to sound principles.

As matters are, it looks as if the Government had promoted this embroilment as a great national experiment to be tried at the cost and inconvenience of the several localities, in order to obtain data for a future orderly reconstruction of the system. But the provincial districts may not like to be made the victims of political empiricism, or the subjects of the sentence *Fiat experimentum in corpore vili*.

It only remains for me to call your attention to the fact that the principles I have endeavoured to impress upon you to-day, are in close conformity with the resolutions passed by this Branch more than a year ago (*Ibid.*, March 16th, 1872), and may be thus summarised.

A proper organisation of districts and authorities is essential to the efficiency of medical action.

No organisation can be reliable and effective which does not secure two desiderata, viz.: 1. The unification of sanitary authority within corrected statistical or registration areas, and the appointment therein of medical health-officers of the first instance; 2. In every county (or two small counties) and in every great town (say of 250,000 inhabitants) the constitution of a proper authority, representing and regulating an exact number of statistical districts, and empowered to appoint (one or more) chief officers of health, debarred from private practice, and acting over well contrived areas.

LECTURE

ON

RECOLLECTIONS OF EMINENT SURGEONS, AND OF PAST OPHTHALMIC PRACTICE.

Delivered at St. Mary's Hospital, June 18th, 1873.

By W. WHITE COOPER, F.R.C.S.,

Surgeon-Oculist to the Queen; Consulting Ophthalmic Surgeon to St. Mary's Hospital; etc.

GENTLEMEN,—When the proposition was made to me to deliver a lecture at St. Mary's Hospital, I felt at a loss as to the subject. Ophthalmic topics are kept so prominently before the profession by the journals, and students are so well instructed in modern practice by able teachers, that I could not enter that field with satisfaction; but it occurred to me, reflecting on the marvellous changes which have taken place in ophthalmic science during the last forty years, that some of my earlier recollections might not be altogether devoid of interest; and I have, therefore, ventured to throw together a few reminiscences of distinguished men, and shall briefly describe certain salient points of practice of which I have been witness, taking the subjects rather in chronological order than in direct connection.

Having entered the profession in 1832 as an articulated apprentice of Mr. Stanley, then assistant-surgeon to St. Bartholomew's Hospital, I pursued my studies there as student and dresser under Mr. Lawrence, Mr. Vincent, and Mr. Earle, until 1840. During that period the lancet was freely used, especially in the practice of Mr. Lawrence, whose dressers claimed, with reason, dexterity in phlebotomy, having had ample opportunities of perfecting themselves in the wards and out-patients' room. There were no special wards devoted to eye-cases, but cataracts were operated on and treated according to the rules laid down by Mr. Lawrence in his practical treatise: "I make it a rule to have the patient bled to fourteen or sixteen ounces on the evening of the operation, unless there be a reason to the contrary. If, however, there should be pain of the eye or head, a large venesection is absolutely necessary. This is a safe kind of precaution. I have never seen it injurious; but in some cases I have had occasion to regret that it was neglected. Bleeding on no account should be neglected."

The case of Sir William Blizard afforded a remarkable illustration of Mr. Lawrence's confidence in the propriety of bleeding. At the age of 92, Sir William underwent the removal of cataract from his right eye; and Dr. Cooke states in his memoir that "in the evening he was bled to eight ounces, Mr. Lawrence remarking that he must be treated, not according to his age, but to his state of health and constitution". The operation was successful (as well it might be), for I remember Sir William's tall wiry figure, and thought he was the very man to make a good recovery. My first visit to the Royal Society was through the kind introduction of Sir William; and I have a vivid recollection, from the strangeness of the incident, of stumbling over a sword, or hanger, as it was called, which lay at the bottom of his carriage. This he always carried with him, and it had stood him in good stead on more than one occasion in the days of highwaymen. It was in acute ophthalmia, however, that the lancet had full play. In Mr. Lawrence's treatise on Venereal Diseases of the Eye, there is a case of gonorrhœal ophthalmia, in which the patient, a prize-fighter, and probably more accustomed to lose blood than most persons, was bled to one hundred and fifty-two ounces in eight days, besides having forty-four leeches applied.

The question as to the advantage or disadvantage of abstraction of blood has led to great difference of opinion. Without entering into the controversy, I may state that my firm belief is, that in many cases the judicious abstraction of blood is eminently useful. It shortens the duration of the illness, relieves—often removes—pain, and assists the action of other remedies. I do not for a moment recommend the reckless depletion of forty years since; but I do think that cupping, or even bleeding from the arm, is often highly useful. Many times have I seen agonising pain in the eye and head, with throbbing temples, at once relieved by cupping; and I think it to be regretted that it has gone completely out of fashion.

Cupping afforded relief, not merely by the abstraction of blood, but by the mechanical drawing of the blood to the surface. The power to

regulate the quantity taken is an advantage, and you never have the erysipelatous irritation which often follows leech-bites. Dry cupping, also, is useful, especially in persons with very irritable skins, who cannot bear counterirritants.

The modern treatment of patients after operations on the eye, and also the treatment of purulent ophthalmia, is entirely different from that of forty years ago. Rarely, indeed, is it that blood is taken under the conditions described by Mr. Lawrence. If pain come on, as it often does, in the evening after extraction of cataract, a full dose of sedative is the appropriate remedy. A favourite combination of mine is the syrup of hydrate of chloral, with the solution of bimeconate of morphia: this allays spasm, relieves neuralgia, and promotes sleep. I had several conversations with the celebrated Baron Langenbeck immediately after the termination of the Franco-German war, and he told me that, according to his experience, nothing equalled chloral in checking spasm after operations, and he had used it largely, especially in amputations, during the war. The combination with the bimeconate of morphia renders the influence more certain and more lasting.

Great abstraction of blood in purulent ophthalmia is much to be deprecated: mere bleeding never cures that disease. Constant washing out the eye with alum-lotion, the judicious use of a solution of nitrate of silver and of tannin, plenty of fresh air, and quinine as a medicine, preceded by proper aperients, is the treatment which I find most efficacious. Nevertheless, do what you will, there are some cases of gonorrhoeal ophthalmia in which treatment is absolutely powerless. The eye (generally that first attacked) seems doomed from the commencement; but the second eye may generally be saved, though possibly somewhat damaged, but its salvation depends on the powers of the patient being supported. If they be exhausted by excessive depletion, the chances of recovery are greatly diminished.

Among the incidents of a summer tour in my student days, was that of assisting to reduce the dislocated shoulder of Sir Benjamin Brodie. I was at a hotel at Newport, Isle of Wight, when a carriage drove hurriedly to the door, and a gentleman was assisted out, who had evidently met with an accident. I at once recognised Sir Benjamin Brodie. He had been thrown from a pony, and had dislocated his right shoulder. Mr. Bloxam, the leading surgeon of Newport, a practitioner of much repute, whose dress was that of the old school, soon arrived; and, with the aid of a couple of waiters, the dislocation, which was into the axilla, was reduced. As Sir Benjamin sat writhing with pain, he remarked that hitherto he had thought lightly of such an accident, but should in future view it very differently. On the evening after the accident, Sir Benjamin complained of a swelling and redness of the foot, which he referred to some injury received in his fall; Mr. Bloxam, however, pronounced it gout, which Sir Benjamin would not admit for a time; but, the following morning, he said, "I think, Cooper, it may be gout: probably the gouty elements were in my system, and the shock of the accident determined the attack; I have seen such cases." In after-life, I have found this hint useful. If called upon to operate on a gouty subject, I prefer to do so immediately after a fit of the gout, whereby the system is cleared. I have repeatedly seen instances in which people have had gout in the foot or knee after operations in the eye, though they did not consider that such an attack was impending, but, as in the case of Sir Benjamin, the morbid elements were there, and the shock of the operation determined the attack. I was one of the last visitors at Broome Park before Sir Benjamin Brodie died; he complained much of pain in the shoulder, and reminded me of the injury it had sustained: thus commenced the malignant tumour which killed him. On the occasion referred to, I had the privilege of passing three days with Sir Benjamin. His great pleasure was in conversation; and, his sight being so imperfect as to render it necessary to have chalk scattered on the paths in his grounds to render them visible, he was glad to take an arm and walk two or three hours each day. I had known him from my first entry into the profession, and have a vivid recollection of his short decisive manner, with a tinge of impatience if the patient were prosy. This manner underwent a complete change towards the close of his life; domestic sorrow and loss of sight were grievous calamities; his manner and voice became subdued and gentle; and, in place of cutting short a conversation, he encouraged it, pouring forth the stores of his vast experience, and relating characteristic anecdotes of many of the distinguished men with whom he had been acquainted during his long career.

I always felt interested in ophthalmic surgery, and became a student at the Royal Ophthalmic Hospital, Moorfields, in 1840. The surgeons were Messrs. Tyrrell, Scott, and Mackmurdo. Mr. Dalrymple was the senior assistant-surgeon, with him Mr. Dixon. The operations were comparatively simple; hard cataracts were extracted almost exclusively by the upper section, though depression was occasionally

performed; soft cataracts were broken up in the manner introduced by John Cunningham Saunders, the founder of the charity. Excision of the eye was only performed in such desperate cases as malignant disease. It was before the era of anæsthetics; and restive children were rolled up in jack-towels, so that they could not move hand or foot, and the eyes were held open by main force. On the practice of Messrs. Scott and Mackmurdo, I need not dwell; but Frederick Tyrrell must not be passed over. A dexterous, neat, and elegant operator was Mr. Tyrrell when I knew him; yet, strange to say, so unlucky was he when first attached to the Ophthalmic Hospital, that the authorities formally forbade his operating until, by practising on the dead subject, he had acquired the requisite dexterity. Cool and self-possessed, nothing could disturb his equanimity. I have seen the point of an extraction-knife break off in the anterior chamber; no one would have been aware from Mr. Tyrrell's manner that aught untoward had occurred; he calmly called for a blunt-pointed cornea knife, enlarged the section, removed the fragment of steel, extracted the cataract, and the case did perfectly well. His treatment of ophthalmic disease generally, was marked by sound good sense and discrimination; and he fully appreciated the distinction between cases requiring depletion and those needing tonics and support—a distinction not so fully or generally recognised as at a later period.

John Dalrymple is remembered by his fine illustrations of ocular disease. He adopted for extraction a sickle-shaped knife, cutting on the convex edge, invented by Mr. Scott. I often saw him use it, but it did not appear to possess the slightest advantage over the ordinary knives; and with the exception of the inventor, Mr. Scott, and Mr. Dalrymple, no one used it.

Towards the close of his career, I frequently met Mr. Travers in consultation. He was a thorough gentleman in manner and feeling; his contributions to ophthalmic science were sound and practical; and, though he had lost the sight of one eye, it did not prevent his being a skilful operator. In the preface to his synopsis of *Diseases of the Eye*, Mr. Travers thought it necessary to make a sort of apology for turning his attention to the subject, and adds: "In this country, I believe no one before myself, who designed to practise general surgery, ventured to give more than a cursory attention to the diseases of the eye; a fear of being disqualified in public opinion by a reputation acquired in these for the treatment of other diseases, was a motive, however groundless, sufficient to deter surgeons from the cultivation of a large and legitimate field of observation and practice."

Henry Alexander, Surgeon-Oculist-in-Ordinary to four sovereigns, had for many years an immense reputation, and as an operator, justly so. I never saw him operate, as he was not fond of the presence of strangers, but am informed that he dispensed with the aid of an assistant when performing extraction, perfectly commanding the eye with his fingers. He was accustomed to make the patient count one, two, three, etc., during the operation. He used Wenzel's knife, made the upper section, and dexterously removed the cataract by digital pressure.

Mr. Alexander had the advantage, very early in life, of succeeding to the practice of Mr. Jonathan Wathen, on the latter becoming Sir Wathen Waller. He had previously been his assistant, and when, many years later, Sir Wathen Waller became blind from cataract, Mr. Alexander had the satisfaction of restoring his sight by a successful operation. I have mentioned Mr. Alexander's dexterity in steadying the eye; it is curious that neither forceps, nor other instrument, was used at Moorfields for that purpose when I was there, though many eyes suffered through the imperfection of the section caused by the globe gliding from the fingers and rolling in. Sichel's assistant chalked the tips of his fingers as he would a billiard cue, to give them a firmer hold, but I do not remember having seen this done in England.

The connecting link between the great German oculist Beer, and the present generation, has but recently passed away. I refer to Beer's pupil and son-in-law, Frederick Jäger, born 1784, died December 1871. Jäger visited England at the time of the Great Exhibition, in 1851, and was three weeks my guest. He took great pleasure in showing his mode of operating, which was that of Beer. He had the patient seated on a low chair, with the back of the chair on one side, knees close together, hands on them. The assistant stood behind, supporting, with one hand, the back of the neck, whilst the head rested against the chest; with the two fingers of the other hand he raised the lid. The operator sat on a music-stool, in front, grasping the patient's knees between his own knees. Jäger always made the upper section, and attached the greatest importance to the knife being carried steadily on by movement of the thumb and fingers, the thumb being quite straight. He was very careful to make a series of cuts, similar to those denominated "cross-hatching," in dividing

the capsule, and then pressed out the lens in the ordinary way. In 1851, we in England had materially modified our views regarding depletion after operations, but Jäger maintained thoroughly the anti-phlogistic theory. "Always bleed," "always purge," "always, always," he repeated, after performing extraction on an old man and an old woman, at the North London Eye Infirmary, and was quite excited when I told him that I should do nothing of the sort, the cases did perfectly well under simple treatment. The worthy Jäger, surprised, said, "Ah, well, such practice may do in England, but not in Vienna; there inflammations are more violent." Frederick Jäger was a most high-minded, estimable man, and it was much to be regretted that the closing years of his life were clouded by adversity and straitened means.

When in Paris, in 1854, Jean Sichel, then at the height of his reputation, performed extraction. He sat in front of the patient, who was supported as recommended by Jäger. The fingers of his assistant were chalked, as I have already mentioned. The upper section was made with a remarkably narrow long knife, very slowly, first in one eye then in the other. He paused for several minutes before attempting to extract the lenses, which he did very neatly; after again waiting, he made the patient stand up, with her back to the light, and open the eyes, when he asked her what she could see. She was then told to close the eyes, and was walked out of the room before bandages were applied. Sichel remarked that he always made patients try to see, as it was "balm to their souls."

To the memory of Albert von Gräfe a passing tribute is due. I saw him frequently when he was in London in 1857, and was struck with his bright intelligence and eager thirst for knowledge. His subsequent career was truly brilliant; a rare example of talent, conscientious observation, and indefatigable industry. He widely extended our knowledge of ophthalmic science, and dying only too soon, left a reputation as noble as it was deserved.

During the last few years many modifications of the operation of extraction have been introduced, some undoubtedly of great merit; yet the results of the flap operation, as performed by Tyrrell and Alexander, would even now be considered highly satisfactory. It has been my experience, and I am sure it is the experience of others, to have groups of successful and groups of unsuccessful cases, without knowing why, inasmuch as some of which I thought badly turned out well, and some operations which pleased me, had unfortunate results.

There are two points which tend greatly to success; to make a section sufficiently large to permit the easy escape of the lens, and to clear the pupil of every fragment of cortical substance. This should be done with the utmost care and gentleness, and will go far towards checking subacute inflammation, and securing good vision.

The old operation of couching—depression—or reclination of cataract is now nearly obsolete; yet there are some cases to which it is appropriate. In very old persons, where the vital powers are low; in diabetic patients in whom there is difficulty in obtaining union of wounds, the lens may be depressed, and if neatly done, good results may be anticipated. The secret of success is not to hurry the steps of the operation, but having placed the lens in the desired position, to keep it there buried in the vitreous humour for some seconds—then to withdraw the needle slowly and cautiously. Thus the cataract is fixed in its bed. Another point to be insisted on is absolute quiet and freedom from any shaking or jarring after the operation, as that would tend to displace the cataract, and cause it to rise and obstruct the pupil. The patient should on no account walk to his bed.

An old gentleman, a martyr to the gout and crippled by it, was operated on by depression; the lens was satisfactorily placed, but unfortunately the patient walked to bed with the heavy tread of a cripple; the cataract rose and the operation failed. The following year I determined upon extraction for the other eye, but waited until a smart fit of gout had passed off; no irritation presented itself, and the patient made an excellent recovery with good sight.

The ophthalmoscope has given the surgeons of the present day an immense advantage over their predecessors, and the operations which have been invented of late years have given a great stimulus to mechanical ingenuity. This is strikingly illustrated when we compare the delicate and beautiful modern instruments now on view in the Surgical Departments of the International Exhibition, with the heavy and clumsy antiquated instruments also there exhibited; among these I may draw attention to two examples of perverted ingenuity. These are contrivances by which an unskilled surgeon is supposed to be enabled to perform extraction; they consist of a blade somewhat like a fleam in shape, and acted on by a spring, as in a cupping frame—it is depicted in Deval's *Traité de Chirurgie Oculaire*. Such a sudden and violent shock as would be imparted to the eye by this instrument, would effectually defeat the object of the operation—

an operation which above all others requires the utmost gentleness and delicacy in its performance. I can scarcely imagine that the instrument was ever used, but specimens are to be seen in the collection lent by the Royal College of Surgeons of England, and in Mr. Blaise's interesting case of ancient instruments.

Whilst greatly admiring the exquisite specimens of workmanship displayed by the instrument-makers, it is well to bear in mind that the real test of surgical skill is to be able to attain the object with simple means, and not to place too much reliance on complicated instruments or appliances. The celebrated Baron Larrey was remarkable for fertility of invention under the most trying circumstances, as in the Russian campaign, and his example may well be followed. It is recorded that after the battle of Borodino, no less than two hundred amputations were performed by Larrey himself, or under his immediate direction: yet there were neither splints nor bandages, couches or blankets for the wounded, and their chief diet was soup made of horse-flesh, cabbage-stalks, and a few potatoes; yet the genius of Larrey triumphed over these difficulties, and the loss by death was much less than might have been anticipated. Larrey invented an eye-poultice, which he used with great success in the ophthalmia which pervaded the French army during the campaign in Egypt. Three thousand men were attacked by it in its most severe form, adding greatly to the labours of Larrey and the surgeons acting under him. The poultice was composed of powdered alum and camphor, mixed with white of egg, and was applied, wrapped in rag, to the eye.

On this very 18th of June, 1815, Larrey had a most narrow escape from death. After the battle of Waterloo was over, and the Prussians in hot pursuit of the French, Larrey was overtaken by a squadron of lancers, unhorsed, and, whilst on the ground, received two sabre cuts, which rendered him insensible, and he was left for dead. After a time he recovered and struggled onwards, but was seized by another detachment of Prussians, who led him before a superior officer, by whom he was condemned to be shot. A quarter of an hour only before the sentence was to be carried into execution, he was seen and recognised by a Prussian surgeon, who had formerly attended his lectures. The surgeon at once communicated with Field-Marshal Blücher, who, remembering that on a former occasion Larrey had saved the life of his son when wounded and a prisoner in the hands of the French, ordered him to be set at liberty, and sent him under escort to Brussels, where his wounds were dressed, and he himself treated with the consideration which he richly deserved.

I do not propose, gentlemen, to trespass longer on your time, and ask indulgence if these remarks have fallen short of your expectations. Personal recollections—recollections which die with the individual and are lost, have to me a charm, and I hope that these to which you have so kindly listened may not be altogether devoid of interest, even to my contemporaries. I would say to those entering our noble profession, accustom yourselves to methodical and accurate observation, every case is a study of itself, and individual peculiarities are endless. I have lately seen a gentleman suffering from catarrhal ophthalmia, with an amount of neuralgic pain in the head nearly producing delirium. Not long since, I saw a lady suffering from neuralgia, for which belladonna had been repeatedly prescribed, with the effect of invariably producing violent tremors and nervous disturbance, without relieving the pain. One great element in success is to cultivate a habit of close observation: this, with deep reflection and sound common sense, is more useful than brilliant genius in the ordinary path of life; such were the characteristics of Astley Cooper and Abernethy, of Travers and of Brodie, and the road to honour and distinction is as freely open to you as it was to them.

THERAPEUTIC MEMORANDA.

THE ADMINISTRATION OF PERCHLORIDE OF IRON.

DELICATE patients very frequently object to the astringent metallic taste long remaining in the mouth after the administration of tincture of perchloride of iron, the flavour of which is but very imperfectly disguised by the syrup or spiritus chloroformi with which it is usually ordered. It may not, perhaps, be too insignificant a matter for mention, that the substitution of a small quantity of glycerine (about half-an-ounce to an eight-ounce mixture) will altogether obviate this inconvenience.

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