

The heavy balance which is here shown against the total results of the second series of operations in China will not, after what has gone before, come upon the reader with surprise. The preceding details will fully have prepared him for this adverse balance-sheet. Amongst the different feelings it is calculated to provoke, those of pity and sympathy will doubtless be most prominent in the minds of the philanthropic at this summary of their countrymen's sufferings and sacrifices. To the medical inquirer alone there will be least cause for gratification; for although he may be able to trace from the effects of the hygienic measures pursued a decrease in the amount of certain forms of inter-tropical disease, he will nevertheless be constrained to admit that in the therapeutic phase no progress, to say the least, has been made. The lesson conveyed, however, if not a grateful one, will not be unprofitable if it leads to further investigation, and to the reconsideration of those remedies which have perhaps been too hastily condemned. The statesman and the economist will, however, find cause for pride and gratification in the fact that with a naval force so comparatively small, and yet the chief instrument in the drama, and at a sacrifice, although distressing, still so confined in its incidence, a vast empire, which had been sealed to foreigners since the dawn of civilization, was at length thrown open, not only to Englishmen, but to all the world; and the industry of three hundred and fifty millions of *workers* made available for the general benefit of mankind.

ART. IV.

Historical Researches on the Use of Forceps as a Means of Fixing the Eye in Extraction of Cataract. By THOMAS WINDSOR, Surgeon to the Manchester Eye Hospital, &c.

THE question of priority in any medical discovery appears at first sight to present few attractions, and its solution to be of equally little value. It is generally supposed, that the knowledge of the fact discovered is in itself amply sufficient; further consideration will, however, show that researches on such points are of real utility, and that they may be made interesting. For, on the one hand, it is on them that the history of medicine depends—the first necessity of any history being truth, history without truth being fiction; on the other hand, they are of service in showing the amount of valuable, and too often forgotten, information stored in the literature of former periods. They who so fondly call themselves practical men, and who with rare exceptions form the charlatans or dunces of the profession, may deride such knowledge—book-knowledge, as they term it; but the many eminent men of the present day who have combined profound learning with great practical skill, furnish us with a victorious reply.

We shall have occasion to show that the idea of employing forceps to steady the eye in extraction, was derived from their use in opera-

tions for strabismus and artificial pupil ; we shall, however, for the sake of conciseness, limit ourselves as much as possible to the consideration of the former operation.*

Mr. France was the first in England to publish an account† of this method of fixing the eye during the first incision of the cornea. He says‡—“ In operating for the formation of artificial pupil I first became aware of the practicability of holding the eye perfectly still and motionless, or as nearly so as possible, by the mere application of artery forceps. The idea at length was suggested of extending the use of this instrument to another operation, in which, as far as I know, it had never been employed (at least in this country) before ; of availing myself, in short, of the same resource as in cases of artificial pupil (and with a similar object) in cases of extraction.” How the idea was suggested may be learnt from another passage.§ “ It is right that I should acknowledge myself indebted to the work of Desmarres, already referred to, for the *idea* of adopting artery forceps as an ‘ ophthalmostat’ in extraction, but not for their advocacy.” Hence it appears that Mr. France derived the idea from Desmarres, but that he believed himself to have first advocated the use of forceps. In another paper, “ On the Use of Forceps in Extraction of Cataract,|| Mr. France says, “ I am desirous of drawing attention to a mode of procedure introduced to the notice of the profession last October. . . . I use the forceps in keratonyxis as well as extraction ; it is pretty generally employed in London in cases of artificial pupil ; sometimes in removing extraneous bodies from the eye ; and, in short, on every occasion (extraction hitherto excepted) when it is desirable to fix the globe.”

Mr. W. J. Square says:¶ “ It is now common to seize the conjunctiva and its subcellular tissue with toothed forceps, in order to steady the globe in operations for strabismus, artificial pupil, &c. ; but this plan, so far as I am aware, was not extended to the extraction of cataract until advocated by Mr. France ;” and Mr. A. Poland writes : ** “ These cases certainly confirm the opinions and experience of Mr. France in a very marked manner. We can, therefore, have no hesitation in pronouncing his method a most valuable addition in the operation of extraction.”

These extracts†† sufficiently prove that this method was unknown to the majority of ophthalmic surgeons in this country till Mr. France

* And more exactly of the use of forceps during the first stage of the operation, whilst the surgeon is making the flap-incision of the cornea. Mackenzie employed the forceps in some rare cases at a later stage of the operation to draw down the globe from under the upper lid. (French edition of Warlomont and Testelin, vol. ii. p. 438. Paris, 1857.)

† On Ophthalmostasis, with an Account of an improved method in Extraction of the Cataract, by J. F. France (Guy's Hosp. Reports, third series, vol. iv. p. 81. 1858).

‡ Loc. cit., p. 92.

§ Loc. cit., p. 100.

|| Ophthalmic Hospital Reports, vol. ii. pp. 20-24. 1859.

¶ The Address in Ophthalmic Surgery (British Medical Journal, p. 733. 1860).

** On the Use of Forceps in Extraction of Cataract ; France's Method (Ophthalmic Hospital Reports, vol. iii. p. 269. 1861).

†† We may mention, also, that Mr. Walton (Treatise on the Surgical Diseases of

published his account. Those, however, who had been pupils of Professor Graefe, must have been acquainted with it; and we have no doubt that, even if Mr. France had never written his paper, it would soon have come into use. That it had been employed in Berlin several years before the publication of Mr. France's paper, is clear from the account given by Dr. F. Ravoth of Graefe's method of performing cataract operations :*—"Some recommend . . . that an irritable eye should be previously touched, and thus accustomed to the irritation of the instrument. It is, however, more advisable to always make use of an ophthalmostat, and thus fix the eye . . . It is best fixed by seizing a fold of conjunctiva with delicate spring-forceps."

At a still earlier period we find that Desmarrest† described and figured the use of forceps in extraction; as he had, however, invented an instrument of his own, it is not very surprising that he recommended it in preference. C. G. T. Ruete‡ has also noticed the use of forceps for fixing the eye in cataract operations, and copied the figure of Desmarres.

In the sixth volume of the 'Annales d'Oculistique'§ there is an essay on a new method of performing extraction by J. E. Pêtrequin, of Lyon; in it we find the use of the forceps strongly urged, and from it we learn that both he and Bonnet had formed the idea of employing some of the instruments used in operations for strabismus in those for cataract; that he had first applied them to depression, and Bonnet to extraction; he gives the notes of two cases of extraction, in which the forceps were used to steady the eye; and, finally, he mentions that he had also found this method very useful in cases of congenital cataract, in cataract with nystagmus, and in the removal of foreign bodies.

In 1841 a work was published by A. Bonnet|| in which we meet with a chapter, "De l'Extraction de la Cataracte modifiée par l'adoption de divers moyens employés dans l'Opération du Strabisme." After describing the difficulties found in making the first incision, he says: "Toutes ces difficultés peuvent être évitées en fixant l'œil comme on le fait dans l'opération du strabisme. La cornée restant alors toujours dirigée en avant et ne fuyant jamais devant le keratome, la section d'une moitié de sa circonférence peut être faite avec une précision et une facilité qui dépassent tout ce que l'on pourrait présumer à cet égard. . . . Je ne crois pas qu'il y ait de l'exagération à dire que l'opération de la saignée n'est pas plus facile que l'extraction de la cataracte exécutée de la sorte."

the Eye, second edition, p. 540, London, 1861) and Mr. Nunneley (Lancet, vol. ii. p. 7, 1862), in referring to this subject, only mention Mr. France's name.

* Schlemm's Operations—Übungen am Cadaver von Dr. F. Ravoth, dritte Aufl., S. 219, 240, 249. Berlin, 1854.

† L. A. Desmarres: Traité des Maladies des Yeux, pp. 602, 608. Paris, 1847.

‡ Lehrbuch der Ophthalmologie, Band ii. S. 694, and Fig. 137, zweite Auflage. Braunschweig, 1854.

§ Vol. vi. No. 5: we quote from the reprint in the Encyclographie des Sciences Médicales, quatrième série, tom. ix. p. 365. Bruxelles, Février, 1842.

|| Traité des Sections Tendineuses et Musculaires, p. 313, and plate 9. Paris, 1841.

Finally, I must mention that J. C. Jüngken* says, that Ger. ten Haaf employed in extraction little forceps (Zangen) for fixing the eye,—a statement which we believe to be incorrect, for although we have been unable to meet with the original work, we find that Haller† says in reference to this matter—“Tenacula litteram Y referens pro firmando oculo, neque enim probat hamum per conjunctivam trajectum ;” and D. van Gesscher‡ describes the instrument as a double blunt hook—“Ten Haaf doet zulks (bepaling van het Oog) door een dubbelen, stompen haak.” His instrument was therefore a kind of blunt fork, and in no respect resembled forceps.

Our conclusions would thus be that—

1. In 1841, Bonnet first formed the idea of employing forceps to fix the eye in extraction ; that he applied it in practice, and that his example was followed by Pétrequin.

2. Professor Graefe introduced this method in Germany.

3. That Mr. France was the first to write on this subject in England ; that although he was not the first to employ this method, he was the first to diffuse a knowledge of it in this country.

ART. V.

On the Existence of a System of Anastomosing Arteries between and connecting the Visceral and Parietal Branches of the Abdominal Aorta. By WILLIAM TURNER, M.B. (Lond.), F.R.C.S.E., Senior Demonstrator of Anatomy, University of Edinburgh.

THE question of the existence or non-existence of inosculations between the branches of the abdominal aorta which supply the viscera of the abdomen and the branches which are distributed to the parietes of that cavity, has from time to time excited the attention not only of the anatomist, but of the practitioner of medicine. In several of our standard anatomical works it has, indeed, been recognised that some of the abdominal visceral arteries—e.g., the renal, supra-renal, and spermatic, give off, previous to entering their respective viscera, small branches to the fat and areolar tissue, with which their organs are more or less completely surrounded. §

Of the anatomical writers in this country, Harrison appears to have been the one who has most distinctly announced this to be the case. Not only does he state (p. 59) that the renal artery, before entering the kidney, gives off small branches to the surrounding cellular membrane and muscles, but he even goes further, and on page 67 says that the middle sacral artery sends branches to the rectum, and on

* Die Lehre von den Augenoperationen, S. 688. Berlin, 1829. The reference he gives is to the Korte Verhand. nopende de nieuwe wyze van de cataracte te genezen. Rotterdam, 1761.

† Bib. Chir., vol. ii. p. 379.

‡ Hedendaagsche Oeffenende Heelkunde, Derde Deel, Bl. 186. Amsterdam, 1786.

§ Harrison : Surgical Anatomy of the Arteries. Cruveilhier : English translation, p. 681. Quain and Sharpey: ed. 1848, p. 561.