

pierced and the capsule seized by *one* instrument, which, of course, materially simplifies the operation. The disadvantage of it (which the inventor candidly states) is the difficulty of separating the blades of the forceps, owing to the small opening in the sclerotic, which must be stretched or lacerated to a slight extent before the forceps can be opened at all. Through the politeness of Mr. Middlemore, I have had an opportunity of testing the capabilities of his instrument, which I easily passed through the sclerotic of a sheep's eye, but found so much difficulty in separating the blades of the forceps, that I should feel reluctant to employ it in operating on the human eye.

I have since had an instrument constructed, of the following kind. It consists of two portions, one gliding over the other, with the extremities curved, so as to resemble a small hook when closed. It is introduced through a small puncture in the sclerotic, made by a flat needle; its curved point is then turned to the opaque capsule, and the finger being placed upon a knob causes one portion to glide over the other, by which movement the curved extremity is converted into a double hook, which, on being again closed, grasps the capsule, so that it may be withdrawn with the instrument.

To make this description fully intelligible, I would observe, that my instrument is nothing more than a representation in miniature of the one used to crush the stone in lithotripsy. The capsule is grasped in the same way as the stone, but the former, instead of being crushed, is extracted. The advantage which I conceive this instrument possesses, is, that as its point separates by one portion gliding over the other, and not by a divergence, like the ordinary forceps, it requires only a small opening in the sclerotic, and not an incision, "about four lines in length," as practised by Dr. Sichel. In fact, while it may be introduced through as small a puncture as the single hook of Mr. Nunneley, it appears to me preferable to his instrument, inasmuch as it is capable of grasping the opaque capsule, when it "may be too floating to be readily seized with the hook."

I regret that I have not yet had an opportunity of fairly testing the instrument on the human eye; but I have frequently seized and torn away a considerable portion of the iris of a sheep's eye by means of it, and shall not hesitate to employ it as soon as a favourable case presents itself.

Worcester, Sept. 6th, 1845.

NEW SURGICAL INSTRUMENTS.

By CHARLES BROOKE, Esq., M.B. Cant., F.R.C.S.E.

KNOWING your readiness to accept contributions to surgical science, I beg leave to transmit to you the description of some new instruments, the construction of which, the application of the bead suture to various internal plastic operations has rendered necessary.

A spiral needle, which may be called *transverse spiral*, has already been described in your valuable pages;* this, however, cannot be conveniently applied to either oblique or transverse fissures in the vagina. In these cases, an *oblique spiral* needle will be found most convenient; this may be described as consisting of about two-thirds of a turn of a spiral formed by winding a thread round a cylinder three-quarters of an inch in diameter, so as to make constantly an angle of forty-five degrees with the axis of the cylinder. These needles must be made in pairs, with a right and left-handed turn, in order to suit fissures that are oblique in either direction.

In order to meet many contingencies that arise in the performance of these operations, it is desirable to possess a knife the edge of which may be placed in any given position with regard to the handle; this object is accomplished by connecting a short scalpel blade to a handle by means of a double-joint, having motion in two planes perpendicular to each other. By means of this, which may be called an *universal scalpel*, the levators of the palate may be divided, according to Professor Ferguson's ingenious plan for the closure of cleft-palate; and I am happy to be able to bear testimony to the great importance of this step of the operation, as I have lately had the opportunity of observing in a cleft-palate the manner in which the halves of the velum were drawn asunder by the *separate* action of these muscles: this is not cognizable in the normal state of the palate, as their *conjoined* action is simply to elevate. By the same means a flap may be raised in any possible direction, to cover a vesical aperture in the vagina. For effecting this latter object, and also for holding the uvula, what I have called the *uvula forceps* will be found very convenient. These consist of two blades, one sliding over the other, analogous in form and action to Heurteloup's *percuteur*.

I may further add, that two instruments for placing knots upon a ligature at any given point out of reach of the finger, of which

I read a description before the medical section at the late meeting of the British Association at Cambridge—namely, a conoidal roller for running up the noose to the required point, and a forked instrument for tightening the knot, have since been conveniently amalgamated into one, as the use of the one immediately succeeds that of the other.

I have also contrived a very convenient and simple instrument for tying two threads together when out of reach, as in placing a ligature on a deep-seated artery, or on the neck of an uterine polypus. This consists of two small grooved rollers or pulleys, placed side by side, about a quarter of an inch asunder, at the end of a handle. After turning the ends of the ligature one over the other, (which, if tightness is required, had better be done twice, for the waxed threads turned twice over one another will generally break rather than slip, owing to the increased friction of the threads on one another,) they are placed in the grooves of the rollers, and the knot carried on to the point required.

These instruments may be met with at Ferguson's, in Giltspur-street, to whom I am indebted for the care and attention he has bestowed on their accurate construction.

Keppel-street, Sept. 9th, 1845.

REVIEWS.

A History of the British Freshwater Algæ, including Descriptions of the Desmidiæ and Diatomaceæ. With upwards of one hundred plates, illustrating the various species. By ARTHUR HILL HASSALL, F.L.S., M.R.C.S. Eng., Member of the London Botanical Society, &c. &c. Two vols. London: Highley and Baillière.

THE science of the healing art, transmitted by the ancients, was fostered and kept alive in the cloisters of the middle ages. The study of natural history, which has ever been cultivated with most success by the student of medicine, found an insecure and doubtful refuge in the same sanctuaries. After the discovery of the art of printing, and the consequent emancipation of the mind of man, the seeds of knowledge were rescued from the stifling and unwholesome confinement of monastic institutions, and were sown abroad among the multitude. Science might be said to have then been born anew, and to have flourished with awakened vigour. Medicine was no longer in a great measure monopolized by monks, but was cultivated as a distinct profession; and natural history still maintained its intimate connexion with the sister science. Notwithstanding the rapid progress which has been made in every branch of knowledge in modern times, the countless increase in the number of its votaries, and the consequent subdivision of labour, this intimate connexion has not yet been dissevered. Those who have undertaken to explore the structure of the human frame, and to minister to "the thousand ills which flesh is heir to," have also extended their investigations to the inferior but not less wondrous works of the Great Author of all things. To particularize individuals in support of this assertion, would be to cite the leading geologists and botanists of the present day; we will content ourselves with mentioning the immortal names of Harvey, Haller, and Hunter, of Linnæus and De Candolle.

We have been incited to these reflections by the laborious and original work before us—a work, which confers great credit on its author. We trust that the success with which Mr. Hassall has been rewarded in elucidating the greatly neglected and hitherto obscure department of botany which forms the subject of his present work, will stimulate many of our brethren, more especially those whose residence in the country affords them peculiar opportunities, to respond to the call of science, and seek to perfect our acquaintance with that interesting class of indigenous productions, the freshwater algæ; there is a wide unexplored region for discovery—the harvest is plentiful, and the labourers are few.

Having made these remarks, we proceed to notice the book itself more particularly, and invite the attention of our readers to one or two points to which our author has devoted especial labour. He strongly insists, and, we think, with great judgment, on the

* See LANCET, 1841-2, vol. i. p. 836.