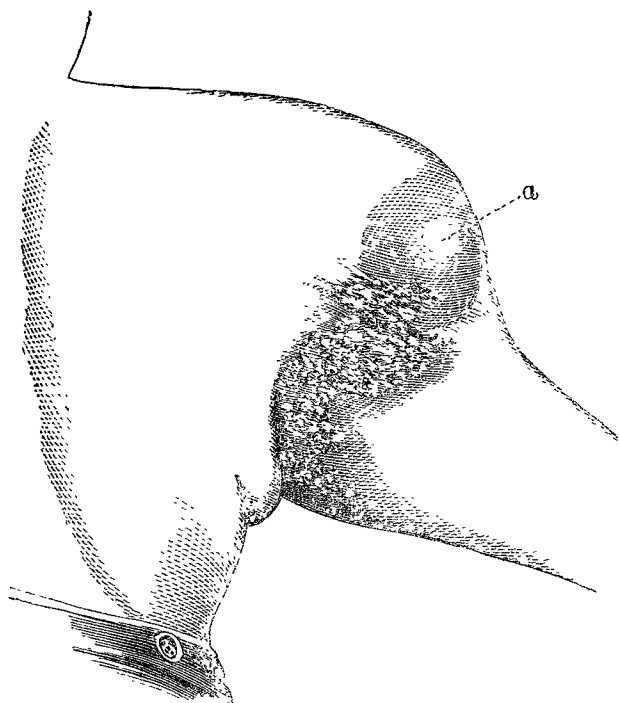


FIG. 4.



Jan. 20th, 1863.—This case has now been under observation five years, during which time the patient has grown from youth into manhood. He is now twenty-one; stands 5 ft. 8 in.; and weighs 12 st. 3 lb. His frame is muscular and altogether strongly built, and he is looking particularly well. He is able to take an active part in the management of his father's business, and is able to use his shoulder without pain so far as its restricted mobility will permit. It is about two inches less in circumference; the final measurements being as follows:—From under the axilla around the tumour, 21 inches; the same measurement of the healthy shoulder, 16 inches (thus giving a permanent enlargement of five inches in the circumference). From the median line of the sternum, around the shoulder, to the spinal column, 24½ inches on the diseased side; 22 inches on the healthy side. The swelling now is bony throughout, and consists of an enlargement of the head of the humerus. The curvature of the spine and projection of the ribs are not now observable. He can raise his arm to a right angle with the body, and can move it forwards or backwards; but cannot get the elbow within five or six inches of the side. On placing the hand over the scapula and acromial end of the clavicle, and working the arm up and down, a great crackling of articular bony surfaces is felt, and which the patient says he can feel, but it is not painful.

At this time it is impossible to surmise what may have been the exact nature of the injury sustained by the fall in 1854. The enormous enlargement of the head of the humerus at present would correspond to a dislocation either into the axilla or on to the costa of the scapula. The centre of motion of the shoulder is now on the costa of the scapula. Whether the original cause was mechanical or not, there can be little doubt but the disease has been of a strumous character in its development and progress, and a constitutional improvement the cause of its cure. The head of the bone has now a uniform, smooth, bony surface, and corresponds well with this description by Samuel Cooper:—"Whenever a bone suppurates, there is more or less absorption of it, and sometimes while the interior texture is removed by the absorbents, so as to leave a considerable cavity, the external shell is expanded, constituting the case technically named *spina ventosa*." The same eminent surgeon, writing on the treatment of scrofulous disease of the joints, beginning in the bones, says—"It is always a rule in the treatment of this disease to open abscesses early." In this instance what seemed to be an abscess was not opened, although it presented a most inviting appearance for such an operation. That this abscess did not break, may be attributed perhaps to the resistance of the expanded periosteum, remaining unaffected by the disease. Eventually, as the fluid contents of the tumour became gradually absorbed, a coincident deposition of healthy bony matter was taking place from the inner surface of the distended periosteum, so that now the bony form of the tumour represents an exact model of the tumour at the time when it was soft and daily threatening to break (*a*, Fig. 3).

In conclusion, the patient and his medical advisers have every reason to congratulate themselves on the happy termination of this at one time seemingly hopeless case. The patient possesses a limb which, although unsymmetrical, is very useful, inasmuch as it will enable him to follow any occupation of a not too laborious character. The permanent bony enlargement is now altogether free from pain either on being handled or moved. The treatment consisted of local counter-irritation in its earlier stage, and of the subsequent inunction of iodine; but the main indication throughout has been to promote an improvement in the general health of the patient. To this end, much out-door exercise, riding in a gig into the country, and excursions up and down the river, a liberal allowance of wine, porter, and animal food, together with the most devoted attention of the patient's friends to his welfare, have largely contributed.

King's-road, Chelsea, 1863.

## A CLINICAL NOTE ON THE EXTRACTION OF CATARACT.

BY ERNEST HART, Esq.,

OPHTHALMIC SURGEON AT ST. MARY'S HOSPITAL, PADDINGTON.

IN a former paper I have expressed the decided preference which I entertain for extraction as a surgical method of restoring sight to cataractous patients, over other methods, whether by drilling, discission, or depression of the lens. The number of cases to which the latter proceedings are advantageously applicable is, I think, very restricted indeed; and I believe the circle of their application may be usefully limited to a very small proportion of the cases in which operation is desirable.

But in order that extraction may be properly appreciated, and attain the full measure of success of which it is capable, it should not be undertaken without very careful preliminary examination of cases; and when performed, there are certain means, in addition to mere manipulative details, by which its success may be greatly aided.

*Means of diagnosis: inutility of the candle test.*—In the preliminary examination of cataractous patients there are certain means of investigation which in practice are of very great value; others which have been much vaunted, and still find place in many classical treatises, may now be ordinarily discarded as uncertain and of comparatively little use. Among the latter is the exploration of the eye by passing in front of it the flame of a candle, of which in the healthy eye, with the pupil dilated, three images should be presented. These are commonly called the images of Sanson, although Purkinje had the priority in pointing them out. But anyone may convince himself by a little clinical study that this method is not reliable as a means of diagnosis; for the three images may also be seen in an eye which presents a very observable cataract. In very recent times the differential diagnosis of "amaurosis" and cataract has been much discussed; but it would now be impossible for any surgeon who duly avails himself of the existing means of lighting up the interior of the eyeball, to fall into the error of confounding the two conditions. Subjective symptoms, moreover, have not the value which they possessed when our means of examination were less searching; and long-written histories are now little to the point in these cases.

There are three positive means to which I think every practical man may usefully resort in ascertaining the condition of the lens and diagnosing accurately the degree of visual power which its opacity may veil. We may test the transparency or dioptric condition of the lens by the ophthalmoscope, and perhaps then examine the retina, choroid, optic nerve, and vessels at the fundus, in one or the other eye; we may test its reflecting qualities or catoptric condition by causing a concentrated pencil of light to play obliquely on the lens; and where total opacity veils the fundus, we may explore the retina by momentarily making pressure in a given and systematic manner on the ball of the eye, thus testing the possibility of producing the luminous circular images which are excited by this manoeuvre where the retina is healthy, and which M. Serres has carefully described as phosphenes or luminous rings of the retina.

To take the simplest of these methods first—that of oblique illumination. It is of course roughly practised by placing the

patient near a window having a good light (not a glare of sunbeams), and inspecting the eye carefully sideways, obliquely, and in different positions. But this is quite insufficient, and in this way chromatic changes of the lens have been mistaken for cataract, while incipient cataracts have been overlooked and patients treated for "amaurosis." To employ usefully this mode of exploration, the chamber should be darkened and the face of the patient shaded, while a lamp is placed at his side; the surgeon then, taking the mirror of the ophthalmoscope in his hand, directs a pencil of rays on to the eye; but instead of looking through the central aperture of the mirror, by which he would receive the axial rays of emergence and get an image of the fundus, he looks on all sides of it, and receives the rays obliquely reflected. In this way, or by holding a candle laterally and in front of the eye in the darkened room, and interposing a large lens, he can by successive movements focus the concentrated rays of light upon any part of the surface or depth of the crystalline and its membranes, and can so accurately light it up as to be able to discern the slightest deposit, whether plastic or pigmentary, and to note the earliest traces of central or circumferential opacity. A little practice is necessary in carrying out easily and effectually this method of examining the lens; but when acquired it has peculiar advantages, and is infallible in recognising cataract.

I will not dwell upon the examination of the supposed cataractous eye by the ophthalmoscope further than to say that the examination of both eyes can never be omitted, because this method of examination is capable of affording a great amount of information where the opacity is commencing, partial, or incomplete, by revealing the state of the fundus and disclosing such conditions of the retina and choroid (effusion of serum, hæmorrhage, optic atrophy, or the like) as may render it imperative to offer a very guarded prognosis, or to dissuade altogether from operation, lest the patient be pained and the operation discredited by failure arising out of conditions which could not be removed by the mere extraction of the lens. In such cases the passage of light *through* the lens often interferes with a clear diagnosis of the nature, site, and full extent of its opacity; and these will always be supplied by the method of oblique illumination to which I have referred. In both, the pupil should be dilated with atropine.

Finally, where the lens is already thoroughly dense when the patient is seen, a most useful resource will be found in the careful examination of the retinal phosphenes by pressure. It is a well-known subjective virtue of the retina that the presence of a solid body in the eye produces a luminous spectrum more or less distinct. This has been carefully studied by Brewster and Serres (d'Uzès). Not to dwell at present upon the interesting theory of the phosphenes, I will only state the practical conclusion of M. Serres, who lays stress upon four phosphenes: the *frontal*, produced by rhythmical pressure over the upper and middle part of the ball, beneath the eyebrows; the *jugal*, by similar pressure at the corresponding point below; the *temporal*, over the insertion of the external rectus into the ball; and the *nasal*, over that of the internal rectus. The pressure is made on the eyelid with the tip of the finger, or a rounded ball on a stem; the end of a caustic-holder serves very well. The luminous appearance partakes of the shape of the compressing body (usually circular or crescentic), and is that of a brilliant white flame. When all the phosphenes are produced, the augury as to the healthy condition of the retina is very favourable; and in proportion as they are feeble, or partially present, or altogether absent, is the judgment unfavourable. Of course some little tact and practice is necessary in carrying out the test, but it is one of great value in certain cases only seen in their late stage, and serves to give valuable information, tending to define the utility of extraction in given instances. I recommend it to attention as a useful resource of practice. Some months since, finding the phosphenes perfect, I was able to hold out favourable prospects to a patient brought to me from the country, who was paralysed, and stone blind with cataract in both eyes. Extraction was successful, and he has now very good sight.

When all complications have been carefully examined by these physical means, which may be satisfactorily applied in far shorter time than is occupied by their description, it remains to fix the season for operation, to enter into the medical history and subjective symptoms of the patient, and to determine the method of after-treatment. As to season, I think it may be considered as generally agreed that the spring months in this climate are the most favourable time, although with proper precautions cataracts may be extracted with success nearly all the year round; and of this there are abundant proofs, so that some are disposed to think that the selection of

spring is due rather to popular fancy. Unless the weather be oppressively hot, or peculiarly sharp and severe, either of which extremes is injurious, I believe that the preference for particular months is not based upon any trustworthy series of chemical facts or accurate theory.

Desiring to limit the present remarks within narrow bounds of brevity, I will beg to reserve the discussion of some points of treatment, &c., for a future occasion.

Wimpole-street, March, 1863.

## A Mirror OF THE PRACTICE OF MEDICINE AND SURGERY IN THE HOSPITALS OF LONDON.

Nulla est alia pro certo noscendi via, nisi quam plurimas et morborum et dissectionum historias, tam aliorum proprias, collectas habere et inter se comparare.—MORGAGNI. *De Sed. et Caus. Morb.*, lib. 14. Proœmium.

### MIDDLESEX HOSPITAL.

#### PERFORATING ULCER OF THE STOMACH; DEATH IN SIXTEEN HOURS.

(Under the care of Dr. GOODFELLOW.)

WHILST cases of gastric ulcer are comparatively frequent in hospital practice, and occasionally watched to their termination without perforation, the perforating ulcer is not so often presented to notice. Dr. Brinton has collected, in his excellent work on "Ulcer of the Stomach," from his own experience and that of others, a total of 257 cases of open ulcer, of which 69 had perforated the organ. In round numbers this is the proportion of one in four. And as he not unreasonably assumes that these 257 open ulcers represent about an equal number of scars, he concludes that one in every seven or eight cases of gastric ulcer terminates by perforating the wall of the stomach—a proportion which is equivalent to about 13·4 per cent. It is a fact worth remembrance, that the ratio of perforation in the sexes is about two females to one male, and that the excess of such cases in the female falls on the sixteen years of life which intervene between the ages of fourteen and thirty; while nearly two-thirds of that excess belongs to the six years between fourteen and twenty. Such a remarkable increase of liability to perforation at this particular period of female life is an important fact which, Dr. Brinton states, Dr. Crisp has the merit of first establishing, as the result of some interesting cases that had fallen under his own observation, and of a large number which he had collected, and which appeared in THE LANCET for 1843.

Perforation generally occurs almost immediately after a meal, or when the stomach is distended. The following cases form no exception to this rule, and a fatal result ensued in sixteen hours in both.

The subjoined notes were taken by Mr. D. Devereux, resident medical officer to the hospital:—

Mary W—, aged twenty-eight, single, a servant, was admitted Jan. 15th. She stated that she had been much overworked for some time. She was of a sallow complexion, and somewhat emaciated. Had suffered for a considerable period with symptoms of dyspepsia, which had become aggravated during the last month, with pains in the epigastrium after taking food; but there had been no vomiting or hæmatemesis. The catamenia had not appeared for three months. At two P.M. on the day of admission, an hour after her dinner, she was seized suddenly with violent pain in the epigastrium, which no position relieved. On admission at four P.M. the expression of her countenance was pinched; surface of body cold; her knees were drawn up. She complained of violent pain, extending over the whole abdomen, and the tenderness was so severe that she could not bear any examination. Pulse 75, small and weak; tongue clean and red; bowels acted the day before her admis-