Improvement set in after two days' oxygen, and on April 18th the ulcers had almost healed. Cultivations all showed staphylococci only, all having been taken after exhibition of the oxygen.

CASE 7.—This patient had lupus of the nose and face of nearly three years' standing. Scraping was done two days before the oxygen was commenced. On March 28th, half oxygen and half air were applied. No cultivation was made before the use of oxygen. By April 3rd there was marked improvement in the ulcers. Cultivations showed a plentiful growth of staphylococci only. By the 5th all the ulcers had closed.

In all the foregoing, with the exception of Case 5, the ulcers were of a very chronic character and had shown great resistance to other methods of treatment. In all the cases improvement was noted in from two to four days after the application of the oxygen gas, and with the exception of Case 3 the improvement was uninterrupted.

A complete explanation as to how this improvement was brought about is at present difficult to give. Possibly the oxygen acts in one or more of the following ways: (a) diminution of irritation—any dressing applied to an open sore causes more irritation than a mixture of oxygen and pure air; (b) direct stimulation without irritation; (c) the oxygen may oxidise the toxins produced by micro-organisms in the surface of the ulcer—this may apply more especially to the toxins produced by bacilli when present; and (d) as stated by Mr. Stoker, the oxygen has possibly a selective power in its action on micro-organisms present in the ulcer, encouraging staphylococci, which then outgrow the bacilli. Some of the foregoing points are at present under investigation. Here, as yet, we have only the practical results of a few cases to go by, all of which are in favour of the oxygen treatment.

Netley.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

ON HOLOCAINE IN OPHTHALMIC SURGERY.

BY ROBERT BRUDENELL CARTER, F.R.C.S. ENG.,
CONSULTING OPHTHALMIC SURGEON TO ST. GEORGE'S HOSPITAL.

A FEW months ago I recorded in THE LANCET a trial of eucaïne as an anæsthetic in ophthalmic surgery, but I found on further use that it was not free from certain disadvantages. The first application to the conjunctiva was apt to be acutely painful, the smarting continuing with some severity for several minutes in some persons, while different specimens of the drug appeared to differ in their power of producing it. I have been told that a modified preparation which has since come into the market, and is sold as "Eucaïne B," is not painful, but I have no personal experience of its effects.

On March 27th in the present year a paper was read before the Belgian Academy of Medicine by Dr. Deneffe of Ghent on a new alkaloid called holocaine, which he described as an effective anæsthetic for ophthalmic purposes, and for which he claimed many advantages over cocaine. He said that by applying a drop of a 1 per cent. solution to the eye three times, at intervals of fifteen seconds, complete anæsthesia would be established in three minutes, without pain, without change in the diameter of the superficial vessels, without dilatation of the pupil, and without paralysis of the accommodation. These results were described as constant. As soon as I read Dr. Deneffe's paper I made an endeavour to procure the holocaine, but there seemed to be none in London. Ultimately, Mr. Rogers, of 327, Oxford-street, obtained for me a supply, and last week I was enabled to use it. In the meanwhile Dr. Gutmann had contributed a paper on the new alkaloid to the *Berliner Klinische Wochenschrift*, and, while confirming what had been said by Dr. Deneffe, he mentioned as an additional advantage that it did not act injuriously upon the corneal epithelium. But he also mentioned that the solution could only be used as an application to the conjunctiva, being

actively poisonous if injected under the skin (*die subkutane Injektion zu starke Giftwirkung bedingt*), and that it could not be sterilised in vessels of alkaline glass, as it became turbid when heated in them. He advised that it should only be heated in porcelain vessels.

I received a supply of holocaine last week, and used a 1 per cent. solution in the manner described by Dr. Deneffe, having first applied some to my own eye and found that it gave no pain. Four applications were made to the patient in the course of a minute; and at the end of four minutes from the first of them I performed cataract extraction with iridectomy. The patient was unconscious of the first incision, and was barely conscious of the iridectomy, not flinching or moving the eye on account of it. The section healed perfectly by the first intention. A day or two later I used the same solution before slitting up the lacrymal canaliculus, and rendered the little operation absolutely painless. As asserted by Dr. Deneffe, there was no action upon either the conjunctival bloodvessels, the pupil, or the accommodation; and I cannot but think that the new agent will be found highly useful in ophthalmic practice. The promptitude of its action is alone of no inconsiderable advantage.

Harley-street, W.

FUNCTIONAL ACTIVITY OF MAMMARY GLAND IN AN INFANT.

BY ERNEST S. HAWTHORNE, L.R.C.P., L.R.C.S. IREL.

THE following case may prove to be of interest to readers of THE LANCET. A woman consulted me on March 11th about her baby girl and stated that when the child was six days old she observed her to be very peevish and difficult to pacify, and that when she touched the child's breasts she would scream piteously. She examined the breasts and found them to be enlarged and painful. She then squeezed them, when about two teaspoonfuls of whitish fluid oozed out from each nipple. The child then became quite quiet, and continued so until the evening, when once more she showed evidence of pain. The mother again examined the breasts and found them in a similar condition to that of the morning, so she again applied pressure and with a like result. Thus, she continued (to use her own words) "milking the breasts" every day for five days, when she consulted me. I examined the child's breasts and found them enlarged to about the size of an orange cut in half; the nipples were prominent, and on squeezing them a fluid resembling the mother's milk in appearance escaped. The child did not seem to be in any pain whilst applying the pressure, and I was able to obtain about three drachms of fluid from both nipples. I applied a small belladonna plaster over both breasts, with the result that they are now in a normal condition.

Georgetown, Queensland.

NOTE ON AN UNUSUALLY HEAVY HEART.¹

BY G. A. REID, M.B. ABERD.,
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THE weight of the heart in the following case merits, in my opinion, its being put on record. A man, aged thirty-one years, was admitted into the Cumberland and Westmorland Asylum in December, 1896. He was 68 in. in height and 148 lb. in weight. He was known to have suffered from heart disease for nearly three years. He had been a heavy drinker, and was said to have contracted syphilis, but had never had rheumatism. At one time he competed frequently in foot-races. On admission he showed all the symptoms of marked cardiac disease; his face was pale and anxious-looking, he suffered from orthopnoea, and he had severe anginal attacks, which were alleviated by the inhalation of nitrite of amyl; his pulse was 132, and of the "water-hammer" variety; the apex beat, which was diffused and heaving, was markedly displaced downwards and to the left, and was in the seventh interspace one and a half inches outside the nipple line; the area of cardiac dulness extended from the third rib downwards and from the right sternal margin outwards to the

¹ A paper read at a meeting of the Border Counties Branch of the British Medical Association at Kendal on April 30th, 1897. The heart was exhibited.