third phalanges of the forefinger were removed; there was a distinct syphilitic taint. In addition to the foregoing, I find in the *British Medical Journal*⁴ a curious case which must, I think, be looked upon as an example of Raynaud's disease. It is reported by Mr. Chauncey Puzey. The patient was a man aged thirty-seven. He contracted a chancre in 1869, which was followed by secondaries in 1870. He subsequently suffered from ague in India. On his return to England, a sore on the penis was followed by a wrinkled and shrivelled condition of the gland. In a few days the whole organ turned dusky; the skin also became cold and dark. In this patient the circulation was very feeble, and his nose frequently turned blue, while the tips of his fingers were exceedingly taper. Two other cases of a brother and sister have been recorded by Mr. Makins in the St. Thomas's Hospital Reports. The girl was fourteen and the boy seven years of age. Both of them suffered from symmetrical gangrene. Here there was a doubtful history of congenital syphilis. In another case related by Englisch⁵ a woman was the subject of symmetrical gangrene in her two feet, in whom he suspected a syphilitic taint. These ten cases, in some of which the connexion with syphilis is somewhat doubtful, are the only ones in which, so far as I can discover, a distinct allusion is made to the latter disease. Of the ten cases five were acquired and five congenital. But, with the exception of the one under my care, syphilis seemed to have exercised but little influence on the course and development of the gangrenous disorder. In my case, however, the connexion with that malady was clearly shown, not alone by the manner in which the two diseases ran into one another, and the symptoms passed, as it were, from one to the other, but likewise by the effect of remedies. On two occasions the patient was immediately relieved by antisiphilitic treatment; nor can it be urged that the improvement in the symptoms was due to the warmth and rest in bed which he enjoyed in the hospital, as for some months before his admission into the infirmary this man had been bedridden at home. It has been suggested that in these cases syphilitic endarteritis may have caused vascular obstruction; certainly in my case no such morbid change could be detected. As far as the arteries of the arms could be followed, they were perfectly pervious and natural. Moreover, although syphilitic arteritis is more especially prone to attack certain portions of the vascular system, no instance, as far as I am aware, has been recorded in which the symptoms occasioned by that disease were so symmetrically distributed over the terminal arterioles of the fingers, ears, and nose as in the case I have here detailed.

In studying the history of symmetrical gangrene I have strongly felt how deeply the science of medicine is indebted to Maurice Raynaud for his profoundly philosophical and able treatment of this subject. In his investigations we have, I believe, the key which will assist us in unlocking many supremely difficult problems connected with the more obscure diseases to which humanity is subject—diseases closely connected with abnormal changes in the sympathetic system. From the very earliest times symmetrical gangrene probably occurred in young persons among all nations as frequently (at least proportionately to population) as in the present day. Still, the disease was not, before the time of Raynaud, recognised as a distinct form of gangrene. Among the old writers I have not been able to discover any very distinct reference to this disorder. Hochenegg⁶ says that the earliest case on record was that of a woman aged twenty-six, who suffered from sensations of heat and pain in her fingers and toes for a long time, and ultimately lost several of them through gangrene. This was published by Christopher Hertius in 1685. One of Raynaud's cases, however, dates back to the year 1629. Among the cases I have collected are several long anterior to the time of Raynaud, in which the symptoms are sufficiently characteristic to justify us in classing them among the examples of this disease. Some of these cases may be found among the medical chronicles of the last century, but far more during the last fifty or sixty years. In the years 1839 and 1840 Mr. Solly brought before two meetings of the Medico-Chirurgical Society the case of a little boy aged three years and seven months who had a dark spot on his nose and whose right forearm was gone; the left arm also was in a state of dry gangrene, and his left foot was completely removed just above the ankle; on the right foot the second and third toes had separated. After a time this child partially re-

covered, but eventually the gangrenous processes recurred, and he succumbed to the disease. In this case, Mr. Solly himself dissected the sympathetic in the neck, the chest, and abdomen, but could discover nothing abnormal. The arteries also appeared natural in structure and distribution. When this case was discussed at the Medico-Chirurgical Society, many of the leaders of medical opinion in this country—men like Sir Benjamin Brodie, Dr. Watson, Dr. Bright, and others—were present, and expressed their views on the nature of the case. They spoke of having seen similar cases, but attributed the symptoms to arteritis or coagulation of blood, or to some mechanical obstruction within the vessels, and in some instances assumed that the patient might have partaken of bread contaminated with ergot of rye. Still, these were assumptions only; they did not admit of proof. Yet even at this time there were men who did not blindly bow to authority; for I find that in a discussion on this subject held at the Medical Society of London on Jan. 10th, 1840, when it was asserted that permanent cessation of pulsation in an artery was always dependent on mechanical obstruction, Mr. Dendy inquired "whether arteries were not subject to spasms as were the intestines"; and a few years later THE LANCET for 1845 contains a case reported by Dr. Craig, of Paisley, evidently of symmetrical gangrene. The patient was a woman aged forty-two; she experienced much pain in her fingers; they were icy cold, and of an inky colour, and eventually separated. In discussing the symptoms Dr. Craig remarks: "In idiopathic gangrene the nerves are the parts first affected, and afterwards the vessels and circulating fluids." These, however, were merely isolated opinions casually thrown out; they were not generally accepted, and received but little notice at the time they were promulgated. Raynaud, however, thoroughly worked out the difficult problem regarding the etiology of the disease. He showed that in many instances there are three stages in its development: the first accompanied by icy coldness and pallor, the dead finger stage; this he termed local syncope; here the affection is usually paroxysmal. The second stage, that of local asphyxia, is that in which blood unsuited to the nutritive requirements of the parts stagnates in the extremities. And the third stage is that of gangrene when mortification occurs. In dealing with this subject, Raynaud trod upon ground which was in a great measure new. It was not alone incumbent on him to demonstrate the data on which his theory rested, but to overthrow and eradicate many deeply-rooted misconceptions and errors. He showed, in the first place, that there could be no closure or obstruction within the arteries, due either to arteritis or any mechanical obstruction, because an injection made in corpses penetrated readily and fully into all the gangrenous parts. He further proved that it was not due to any congenital or acquired narrowing of the calibre of the arteries, that it was not dependent on embolism, and that it was altogether distinct from diabetic gangrene and gangrenous ergotism. Finally, he expounded the true nature of the affection; strengthening the views he had laid down in his original thesis, by his beautiful and suggestive observations on the changes seen in the retinal arteries in a remarkable case of symmetrical gangrene which came under his care in April, 1872.

(To be continued.)

CASE OF CARCINOMA OF THE LARYNX; TRACHEOTOMY.

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E. S. E—, aged forty-nine, married, came under notice eighteen months ago at the Newcastle-on-Tyne Throat and Ear Hospital, suffering from symptoms of laryngeal disease. Twenty-three years ago he suffered from syphilis, which was said then to have been properly treated and cured. Shortly afterwards he married, and is the father of ten healthy children; his wife is strong and well.

At the first examination of his larynx the left local band was noticed to be irregular in outline, immobile, and covered with a thin grumous discharge; the right band was apparently normal. The symptoms were: distressing cough, vox rauca,

⁴ Vols. i., ii., 1874.

⁵ Wiener Med. Wochenschrift.

⁶ Med. Jahrbücher, 1885.

and emaciation; chest organs normal. Specific treatment was at once adopted—for the first few weeks iodide of potassium alone, then in combination with grey powder,—with little benefit; corrosive chloride and other inhalations were likewise used. In about three months' time the left wall of the larynx had become invaded by a pathological deposit effacing the local band of the same side, and fixing the left arytenoid cartilage. In another two months this deposit had extended to the right side of the larynx, causing destruction of the same vocal cord in a similar fashion, without, however, implicating the right arytenoid cartilage.

The patient was then lost sight of for six months. On returning, examination showed the larynx on each side up to the level of the false cords to be the seat of fungating growths, that of the left side being the largest. The patient had by this time become markedly emaciated and voiceless. The cough was incessant at night, and swallowing gave pain. The left arytenoid was now fixed, abducted, and depressed. A variety of remedies were applied locally to the larynx—e.g., lactic acid, menthol, and (once) chronic acid,—but without effect. The galvano-cautery was once used, but with no good result. The chink left for respiration between the two fungating masses in the larynx becoming almost daily smaller, tracheotomy was suggested to the patient, but was declined. Chloral and paregoric were used as sedatives for the cough during the interval. One month before operation a phlegmonous swelling with pain began over the left side of the larynx, which rapidly increased in its dimensions, and, extending from the left angle of the jaw (and fixing the same) down to the middle of the neck and round the front of the larynx, obscured all its landmarks. The patient's condition with this became much more serious, respiration and swallowing being both alike difficult.

Consent was now obtained for operation. After chloroform had been given, a straight incision, as that for tracheotomy, was made along the middle line as far as that could be made out, and on penetrating the deep layer of cervical fascia, which was clearly seen, a large escape (two ounces) of foul-smelling pus took place from a considerable cavity, extending the length of the larynx on the left side. Further operative procedure was postponed until this cavity should be effectually treated and closed, more especially as it was noticed that, as the pus escaped, the breathing became easier. It was, besides, thought that, were the trachea to be opened at once, disaster might follow the trickling of any of this foul pus into the lungs.

All trace of the abscess cavity and swelling had disappeared in the course of ten days. No necrosis of cartilage could be made out as a cause for the suppuration, nor was there any sinus found leading from the abscess. The patient was accordingly once more put under chloroform, the first incision extended downward through the isthmus (which gave little trouble and was tied on either side), and the tube inserted through an incision in the upper three rings of the trachea.

For four days after operation the patient suffered severely from cough, difficulty in swallowing, and stiffness of the jaws; but since then, up to the present date, he has enjoyed fair sleep at night, freedom from cough, and a good appetite. His appearance has improved, and he has put on flesh. Once or twice fetor of breath has been noticed, and a slight staining with blood of the discharge from the mouth. Examination of neoplasm in the larynx shows that that of the left side is enlarged and overlaps that of the right, thus almost closing the glottis. The musculature of the right side of the larynx is still free, and, when acting, a crater-like cavity is seen, lined with granulations. The growth extends quite up to the line of false band, the upper surface of which on each side as yet is only infiltrated and inflamed. The external configuration of the larynx is normal, with very little enlargement of the cervical glands.

Remarks.—The affection began, as was clearly seen, in the left local band (or closely in its neighbourhood), rendering it pale, flaccid, and immobile; that to this succeeded ulceration with disappearance of cord, and, later, on granulations; that the same course was observed on the right side; that fully twelve months passed before ulceration was established and sprouting commenced. The abscess that formed at the side of the larynx is probably to be accounted for by putrid absorption from perichondritis. Fully five months has now elapsed since the tracheotomy was performed, and so far the patient is in a much better condition than he was for months before the operation.

Newcastle-on-Tyne.

KEHRER'S OPERATION FOR DEPRESSED NIPPLE.

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PROFESSOR F. A. KEHRER of Heidelberg has suggested¹ and practised an operation for the cure of depressed nipple. The cases in which this operation is indicated are those in which the nipple lies in a sort of cup, so that it does not project enough above the surface for the child to seize it, but is otherwise well formed, as in Fig. 1. The operation consists in the excision of a ring of skin, or of two crescentic pieces of skin, surrounding the nipple; so that in the healing of the denuded surface the approximation of the internal and external edges of the ring or crescent may so pull upon the skin immediately surrounding the nipple, and forming the cup in which it lies, as to obliterate this cup and render the nipple accessible to the child.

So far as I am aware, this small, but I think useful

FIG. 1.

operation, has not yet attracted attention in this country. I have performed it twice. One of the cases I have been unable to keep under observation. In the other I am now able to judge of the effect of the operation.

The patient, aged thirty, has had three children. The first child she suckled with the left breast, the nipple of which was well-shaped and prominent, but not with the right. The right nipple was sunk in a hollow, so that the child could not seize it, and its apex was drawn in so as to form a dimple (Fig. 1). In May, 1887, she was delivered of her second child in the General Lying-in Hospital. She suckled, as before, with the left breast, but the child was unable to take the right. Five days after delivery I performed Kehr's operation on the right breast. As the dimple on the nipple ran horizontally, I removed two crescent-shaped pieces of skin, one above the other below the nipple, each piece measuring about two inches long by about an inch across its widest part (see Fig. 2). The patient returned to the hospital to be delivered of her third child in May, 1889. She can now suckle with both breasts. The right nipple, although not so prominent or well-shaped as the left, yet projects enough for the child to grasp it. The object of the operation has therefore been attained.

Hailey-street, W.

FIG. 2.

A MALLEABLE TRUSS FOR CORRECTING DEFORMITIES OF THE NOSE.

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IN CHARGE OF THE ORTHOPÆDIC DEPARTMENT.

IN THE LANCET of Sept. 20th, 1884, I described a nasal mask for gaining a fixed point whereon to secure the nasal truss; and, again, in the number of Feb. 25th, 1888, a poroplastic cap for the same purpose. I have now to describe a new form of truss. In the older contrivances the correction