good sized sound, say, No. 6 or 8, it is an absurdity to divide it on any grounds; 2. That the cervical canal between the os externum and the os internum is an infundibuliform cavity, and seldom or never is contracted or requires dilatation, except in congenital cases, or in cases where there are adhesions from the action of caustics or of labour; 3. That the os internum, so far from being open, as described in anatomical works, is closed by a vital contraction of the circular fibres, like the anus, and so closed that, except in morbid conditions, force has to be used with the sound in perfectly healthy women; the exception being certain morbid conditions, and in some physiological ones, specified in my paper read at the British Medical Association.

I think the non-recognition of this anatomical and physiological fact is at the bottom of all the rash useless surgery which I deprecate, and that I am only doing my duty in bringing the subject before the profession from my semi-retirement on the shores of the Mediterranean. Surely, as one of the Nestors, I may say, of modern gynaecology, as one who long fought the battle of uterine progress single-handed, I have a right to be heard on the subject. Nor do I think that my junior friends in the gynaecological field should feel hurt if in doing so I go counter to their views and opinions. The world of science is open to all. I have fought many a hard battle with a smiling face and a hand held out to my antagonists. Moreover, we are all responsible for our opinions uttered publicly in societies, or published in the medical journals, and must stand or fall by them.

I do not enter into any further details on this important subject, for my paper is there—in the number of this JOURNAL for September 21—to be referred to. I would only ask every gynaecologist who reads this statement to examine carefully with the sound every case of uterine or vaginal disease, slight or severe, that he sees; and, with the exceptions named in my memoir, he will surely find that the sound stops at one inch and a half from the external os, the entire depth of the uterine cavities being two inches and a half. This is the depth at which the sound should pass—two and a half inches—if it enter the uterine cavity, passing the os internum.

When we consider that every healthy woman examined with the sound—if I am right, and if it stop physiologically at the os internum—must be considered to suffer from a morbid contraction by those who are unacquainted with the fact, it becomes evident at once to what a frightful excuse for useless surgery such ignorance leads. Every healthy woman in the kingdom examined under this impression may be pronounced to have contraction, and be dilated or incised, according to the mode of practice adopted.

When we consider, too, that, according to the census, half a million of married women are sterile (one in six), we see to what such ignorance must lead. The existence of the natural sphincter in this half million of women justifies, in those who ignore it, any wild fancy, any amount of dilatation or of division.

I do not think there is just now a more important question before the profession; and I sincerely trust that Dr. Matthews Duncan's memoir will lead to its thorough discussion and elucidation, by himself first, and then by others. I may add that such a discussion should follow the order I have given, and be anatomical, physiological, and pathological.

Mentone, France, February 9th, 1873.

NOTE ON THE CHEMICAL HISTORY OF THE ERUPTION SOMETIMES FOLLOWING THE ADMINISTRATION OF CHLORAL.*

By T. P. BLUNT, M.A., F.C.S.

I DO not think that I shall justly incur the stigma of going beyond my last, if I offer a suggestion with regard to the origin of this phenomenon, now tolerably familiar to practitioners, a strongly marked case of which came under my immediate observation a few years ago, before it was well known and recognised. Although, therefore, an explanation at once suggested itself, I hesitated to call attention to it, thinking it just possible that the exception might be the result of a unique idiosyncrasy.

I must first remind you of the reaction to which chloral hydrate owes its physiological effect. When chloral or "chloraldehyde" comes into contact with an alkali, chloroform is produced, together with formiate of the alkali. The first named substance is very easily detected in a mixture of the kind, from which it separates with all its characteristic properties; the latter is not so readily recognised, though its presence is, of course, equally invariable. When a dose of chloral is taken into

the stomach and absorbed into the circulation, it meets with free alkali in the blood, the reaction described follows, and the chloroform produced exercises its usual hypnotic action upon the patient. Under normal conditions, the formiate produced is no doubt eliminated by the kidneys, after the manner of most other soluble salts; but it must be borne in mind that it is in the meanwhile carried about in the circulation, diffusing itself through the whole body, and therefore finding its way into the capillaries of the skin, and into the neighbourhood of the sweat-glands.

Now the sweat is always during health more or less acid, and physiological chemists tell us that the acidity of the secretion is usually derived from lactic acid—a powerful acid, somewhat analogous to the tartaric; it is probable, therefore, that when the alkaline formiate comes into contact with it, formic acid would be set free. Under normal conditions, the amount of acid might be too small to produce any unpleasant effects; but when the sweat is abnormally acid, as is often the case throughout life with certain individuals, and under exceptional circumstances might occur to any one, the amount liberated might be sufficient to exercise the characteristic irritant action familiar to us in the sting of the ant and the nettle. Two probable objections to this theory present themselves—the first founded on the dilution of the acid in the liquor sanguinis, the second upon its minute quantity. My reply to the first objection is, that the boiling point of formic acid being about 220 deg. Fahr.—i.e., higher than that of water, it would probably be concentrated in the sweat-glands by insensible perspiration. To the second I answer by pointing to the considerable amount of irritation following the injection of the contents of a single poison gland of the common nettle, which is an object so minute as to be scarcely discernible without the microscope. I think, therefore, that I have made out a tolerable case against the alkaline formiate, which is the complementary product of the reaction by which chloroform is produced upon the administration of chloral hydrate.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS OF GREAT BRITAIN.

ST. BARTHOLOMEW'S HOSPITAL.

A CASE OF SECONDARY HÆMORRHAGE FROM THE EXTERNAL CAROTID ARTERY: WITH REMARKS.

(Under the care of Mr. SAVORY.)

WM. EALES, aged 48, was admitted on the 23rd of last June for a tumour in the right side of his neck. He first noticed it about two months previously, when it was of the size of a small filbert; but up to the time of his admission it had steadily enlarged, and was then of the size of a small orange. It was uniformly elastic, and fluctuated on pressure. It was situated beneath the sterno-mastoid, and that muscle could be plainly traced curving over it. A distinct pulsation could be felt by the hand placed on it, and a bruit might be heard on applying a stethoscope to the surface, but this was obviously transmitted from the subjacent artery. His voice, for the last fortnight, had become very husky, and he suffered from considerable pain in the back of his head. There was no difficulty in swallowing, and his general health was tolerably good. A consultation was held, at which some difference of opinion was expressed as to the contents of the tumour, but it was unanimously agreed that previously to any operation a fine trocar should be passed. This was done on July 5th, and a few ounces of thin sanguinolent fluid were evacuated. On July 8th, the patient being under chloroform, the cyst was freely laid open. It was lined throughout by a smooth membrane, and extended irregularly among the deep structures of the neck. On introducing the finger, the carotid artery could be plainly felt through its wall pulsating at the bottom of the wound. Strips of lint were introduced and changed daily for about a week, the wound being gently washed out by a syringe with a weak solution of Condyl's fluid, as the discharge became offensive. Little or no constitutional disturbance followed the operation; the thermometer did not register above 98 deg. in the axilla.

About midday on July 17th, hæmorrhage so sudden and profuse occurred that he lost, as it was calculated, over three pints of blood in little more than a minute. A larger stream of blood, having nearly the calibre of one's little finger, was seen to spout from the wound, but was immediately controlled by digital pressure. He was at once taken into the theatre, and under chloroform the original incision was extended, and the greater portion of the cavity exposed. The part around the

* Read before the Shropshire Scientific Branch.