practice, at least, I have not often met with cases of sterility assignable to anterior deviations from the normal position of the uterus, and I have seen early pregnancy coexistent with marked anteversions. On the other hand, I have often traced sterility to retroversion, and again still more frequently to retroflexion, by the latter of which not only is the permeability of the canal mechanically constricted at the point of flexion, but, moreover, as in cases of retroversion, and also of prolapsus uteri, the vaginal retentive capacity was necessarily interfered with. In each and all of these three latter conditions I have generally found that the reposition and maintenance *in situ* of the uterus by a properly adjusted Hodge pessary sufficed, if the canal itself was permeable, to cure the sterility thus occasioned; otherwise, the operation of opening, by incision and dilatation, the cervical canal is also necessary, more especially in cases of flexion with elongation of the cervix, where, from long-continued pressure at the angle of flexure, much absorption of tissues has taken place. In such cases the result of incising the cervix, which should always be divided backwards, is, as Dr. Emmet observed, to bring the neck of the uterus to a more natural length, and it then becomes straighter, shorter, and thicker. This change in the neck is brought about, it is supposed, by the action of the longitudinal fibres after the circular ones have been divided.

Endometritis and Sterility.—Chronic endometritis is incompatible with fecundity, and as long as that disease exists to any serious extent the patient must remain barren. This fact, to which I called attention many years ago, is one of great practical importance, and is too generally ignored in practice. I have known many instances in which patients were subjected to active surgical treatment to overcome some supposed mechanical obstacle to impregnation, and who nevertheless remained childless, no attention having been paid to the existence of chronic cervical inflammation, on the subsequent cure of which pregnancy has followed. In such cases not only is impregnation mechanically obstructed by the viscid glairy secretion by which the os and inferior segment of the cervical canal is sealed in all cases of endocervicitis, but also, as Mr. Whitebread long since pointed out, the inflammatory action going on within the uterus may prevent the formation of the membrana decidua; and hence the ovum, even though impregnated, is necessarily thrown off without any manifestation of its existence in the fertilised state. Secondly, the diseased condition of the lining membrane of the uterus may be extended to the Fallopian canals, obliterating for a time their internal orifices, so as to oppose an insurmountable barrier to impregnation. Thirdly, the uterine secretions, in cases of endometritis, may be inimical to the active existence of the spermatozoa.

Hence, agreeing as I do with Mr. Whitebread's views, I may also recapitulate briefly the conclusions on this subject which I published several years ago in the first volume of the *Dublin Obstetrical Transactions*, and which have been confirmed by my more recent experience, namely: 1. That congestive hypertrophy of the uterus, and especially of the cervix uteri, is a very common cause of sterility. 2. That these conditions are, in the majority of cases, occasioned by constitutional causes, one of the most frequent of which is the scrofulous diathesis. 3. That these diseases require constitutional as well as local treatment; and in this connection I therefore would again urge the benefits derivable in such cases from certain mineral and thermal waters, the uses of which are fully described in my work on *The Health Resorts of Europe*.

Ovarian and Tubal Sterility.—Ovarian inflammation is one of the most frequent consequences and accompaniments of endometritis. In these cases the inflammation extends from the uterus along the Fallopian tubes to the ovaries, and this to a great extent accounts for the fact just mentioned, that patients suffering from endometritis or endocervicitis are invariably sterile. In such cases the inflammatory action is generally attended by a viscid exudation, by which the tubes, and especially their uterine orifices, are mechanically sealed against the possibility of impregnation. Independently, however, of its frequent sequence on endometritis, tubal obstruction, productive of dysmenorrhœa and sterility, may also arise from those possibly graver, but, according to my experience, comparatively exceptional diseases, namely, idiopathic salpingitis and pyo-salpinx, in the treatment of which operative procedures, involving loss of all future conceptive ability by the complete removal of the uterine annexa, are now so readily resorted to by some practitioners. For my own part, having in not a few cases seen all the supposed symptoms of pyo-salpinx subside completely without any surgical interposition

whatever, it would seem to me quite as rational to amputate the breast for an ordinary mammary abscess as to remove the Fallopian tubes merely because they may be the seat of serous or purulent exudations. In some cases of the latter kind there is, as I can vouch from clinical experience, no absolute impossibility of reaching and removing such collections by aspiration or even by catheterisation of the Fallopian tubes.

Many years ago, having occasion to use the sound in a patient suffering from dysmenorrhœa and sterility, I was surprised, there being no enlargement of the uterus, to find the sound pass in up to the handle, and on palpation discovered that obviously it had entered the right Fallopian tube. A year subsequently that lady gave birth to her first child, after eight years of married life. Since then I have more than once succeeded in accomplishing by a little careful manipulation what in the first instance was but a happy accident. And hence I endeavour to impress on those who attend my hospital practice, the fact that the catheterisation of the Fallopian tubes, when employed by a practised hand and with due caution, is a feasible, and in some exceptional instances may possibly prove an effectual, method of treating certain cases of dysmenorrhœa, sterility, and other morbid conditions.

Sterility may also arise from causes irrespective of any physical lesion; and although impregnation in no way depends on the sexual orgasm, unquestionably it may be prevented by strong mental emotion or personal dislike. In some instances, however, sexual incongruity productive of sterility coexists with conjugal affection. Thus, I have more than once been consulted by sterile patients, happily married, desirous of offspring, and not suffering from any physical disability, who informed me that, though warmly attached to their husbands, not only was there absolutely sexual indifference, but even positive repugnance to coition, any attempt at which in one of these cases invariably produced nausea. In that case I may add that the last-mentioned symptom was allayed by the use of cocaine suppositories.

Still more commonly is sterility dependent on abuse or abnormal irritation of the sexual organs, and hence the general sterility of prostitutes. It is hardly necessary to observe that in such cases a long period of abstention from all sexual stimulation affords the only hope of curing the *impotentia generandi*.

In the treatment of infecundity, independent of any local disease, malformation, or displacement, or of any obvious derangement of the general health, or other tangible cause, and in which the mineral waters already referred to have either been tried without benefit, or are contraindicated or not available, a course of sea-bathing, whatever may be its *modus operandi*, is a prescription the occasional efficacy of which in such cases I have seen proved by experience.

HÆMORRHAGIC PHARYNGITIS.

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I WISH to draw attention to a condition I may call, from its chief symptom, "hæmorrhagic pharyngitis." It is not mentioned in our textbooks. I have found it very obstinate to cure if its cause be overlooked, and also because I have found amongst patients suffering from it some of the greatest grumblers at medical men whom I have ever met. And no wonder. Five out of eleven very marked examples of this condition were thought to be, or were to become, victims of phthisis, had got no benefit from medical treatment, and before they came under my care had drifted, by the advice of friends, to the tender mercies of quacks, who promised to cure their consumption, and had made themselves worse in pocket and digestion by swallowing many bottles of tarry emulsions. Three other patients, whom I saw when at the Riviera, were wandering from one town to another there, at great inconvenience to their work in life, and without any benefit to their ailment. Let me give a case fairly typical of them all, as much as possible in the patient's own words.

Mr. B. came to see me, and, almost before I had time to say a word, produced his pocket handkerchief, and, with a voice expressing the deepest concern, said, "Doctor, what's this? Is it serious? Is it a return of consumption?" I saw on the handkerchief several masses of dusky, red-stained expectoration. He told me that, preceding this attack for several days, he had a sensation of constant tickling in his throat, and an equally tormenting desire to clear it; and his throat felt dry and burning, and this burning feeling was greatly increased by swallowing

anything pungent. He told me he generally got his first warning whenever sherry felt burning as he swallowed it. After about two days of great discomfort he got relief by being able to hawk up very frequently dark, blood-stained lumps of phlegm. This he kept constantly doing all day long for about a fortnight. He at the same time had a good deal of pyrosis and great mental depression. As the attack wore off the blood-staining got less and less; and, as he invariably examined each mass of expectoration, he got cheered by seeing it become yellow; then the yellow mixed with something clear and gelatinous, with what he called dark spots in it. He very strongly emphasised the fact that he got no benefit from coughing; that only by hawking, in which he was quite an expert, did he bring the secretion up easily and quickly. This gentleman was of an intensely nervous, anxious temperament, seemed to be in fairly good health, not intemperate in any way—indeed, far too careful to keep up his tone, and had not got any thinner, felt himself very low, was very liable to be bilious, and in cold weather liable to attacks of extremely painful diarrhoea, passing many copious, offensive, white-coloured motions. An attack of this diarrhoea seemed to relieve his throat for some time afterwards, and the sanguineous expectoration stopped for awhile. He never had piles, and when a boy had many attacks of epistaxis.

Another interesting case was that of a young gentleman, a Mr. McK., aged 27, who was brought to me by his father, having been told by their family doctor that his son was suffering from an attack of hæmoptysis, which indicated commencing mischief in his chest and urged him to take a long sea voyage, or a stay on the Riviera. This young gentleman had had frequent free epistaxis when a boy, and was frequently bilious. Another case was that of a Mr. R., aged 52, of portly size, and, being a man of leisure and means, had been to a fresh physician for each recurrence, and now thought he would try me just to give me a chance. He had epistaxis when a boy, and told me also that he remembered getting innumerable powders in childhood, as his liver was said to be perpetually out of order, and his motions never pleased his mother or nurse either in colour or consistence, being always called pasty. The least indulgence in the good things of life gave him a bilious headache, and he had been told his heart was weak.

The diagnosis of all these cases rested on the fact of the entire absence of lung mischief, and on the microscopic characters of the sputum. The clear portion of the secretion consisted of large squamous epithelium from the mouth, and many small round cells from the entrance to the larynx, and a few pus corpuscles, the yellow portion of pus and fat cells, a few blood corpuscles, and in great abundance the large spheroidal cells from the pharynx, and a few cubes of common salt—when the phlegm was dark red, of course quantities of blood corpuscles and crystals of hæmaturia. There were no elastic fibres nor any distinctive epithelium from the alveoli or bronchial tubes. Two of the cases came under my notice since the discovery of the tubercle bacillus, and I need hardly say I could not find it. I may mention that as most of these cases were very nervous people the microscopic examination seemed to reassure them very greatly, and I would like to advise every practitioner as a routine thing the microscopic examination of the sputum. I have found nothing equal to it in obtaining the patient's confidence. There was nothing unusual to be seen in the pharynx except that it looked frequently anæmic in the early stages with enlarged veins coursing over it. Afterwards there were patches, especially laterally, of a very deep dusky-red colour. There were no signs of follicular disease, and the larynx was normal in every case. In nine out of the eleven cases the liver was slightly enlarged and tender.

Now what causes this condition? Is it catarrhal? I think not. I am inclined to think it hepatic in its cause. The epistaxis that most of these cases suffered from in childhood is, we know, associated with hepatic disturbance. There was a fairly continuous history of biliousness and liver engorgement, and as there were no piles, it seems to me that pharyngeal hæmorrhage of a passive character replaced the ordinary rectal leakage.

At first, thinking I had to do with a local disease, I used various astringent pigments and sprays chiefly of iron and tannin, but no benefit was derived from their use. I have found most relief in the irritative stage from painting the pharynx with a solution of carbolic acid and glycerine ($\frac{3}{4}$ ss to $\frac{3}{4}$ j), and using Allen and Hanbury's pastilles of chlorate of soda. As most of the cases were men of a flabby condition in addition to their biliousness, I have found a combination of nitric acid and extract of bark of the greatest value if continued for several weeks, adding a little tincture of

nux vomica if much flatulence troubled the patient; also limiting the amount of fluid taken to about half a pint with each meal, and the avoidance of cold bathing or sponging helped to maintain the gain derived from the mixture. The effect of alcohol was very marked in its positive injury. It was noticed by several that if they had been out to dine and had taken more wine—especially champagne or port—than usual, they knew that next morning their expectoration would be bloody. One gentleman noticed that he invariably had a relapse when abroad after taking *café noir* and cognac the night before.

I found in obstinate cases when the nitric acid failed, the somewhat old-fashioned prescription of sulphates of magnesia and iron with dilute sulphuric acid of great use. The use of a saline aperient, especially if taken after a little blue pill the night before, was extremely useful, and latterly I have always started the treatment with it. Thus it will be seen that as I treated the throat less and the general condition of the patient more, and, to use an old medical phrase, "looked after his liver," the better the result. Many times I have heard patients say that they could not get their medical men to do this. It seems to me that this important organ has gone out of fashion with the profession nowadays, and bacilli and endless neuroses absorb all its energies, greatly to the gain of the endless makers of pills and mineral waters; the numbers of aloetic pills and glasses of waters containing chiefly sulphate of magnesia, that are swallowed—too often unwisely—by the public is hardly realised by medical men.

THE COMMUNICABILITY OF TUBERCLE THROUGH COW'S MILK.

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THAT cow's milk is not uncommonly a vehicle for the transmission of infectious disease to the human subject is now well understood. The evidence in support of such a mode of propagation is in many cases incontestable. Enteric fever, scarlet fever, diphtheria, and a disease resembling the foot-and-mouth disease of cattle are known to have been spread by means of the milk-supply. There is one other disease, tuberculosis, in which cow's milk has not been definitely proved to have served as a carrier of contagion; but amongst those who have made a study of the subject the view in favour of such a mode of propagation is regarded as containing the elements of extreme probability.

Cattle are very susceptible to tubercle, and stall-fed dairy cows in towns are not infrequently found to be affected. Indeed, Professor Fleming has asserted that at least 25 per cent. of all dairy cows kept in towns are the subjects of this malady. These animals are stalled day and night in stables often uncleanly or badly ventilated, and they are perpetually being drained of large quantities of milk. Prolonged lactation in the human female is well known to be a frequent precursor of phthisis, and it is not to be wondered at that, under such circumstances, and with the additional factors of confinement, want of exercise, and bad air, cows should succumb to a malady to which they are in a high degree susceptible.

It has been found by experience that the best bred animals, which are also usually the best milkers, are those which are soonest affected. In the early stages the symptoms of the disease are ill-defined, the health of the animal is apparently not interfered with, and the milk secretion is as abundant as ever. It is not until the disease is well established that nutrition is interfered with; and even then, unless the amount of milk is seriously lessened, the dairy farmer continues to keep the animal in stock. So far as known at present, the milk of tuberculous cows is free from tubercle bacilli, unless there has been—as is sometimes the case—a deposition of tubercles in the glands of the udder.

It would be extremely interesting to know in what percentage of cases the mammary glands are involved in the process of tubercularisation, and at what stage of the disease such involvement usually commences. Milk which contains tubercle bacilli, when given to guinea-pigs and rabbits, causes tubercular deposits in the lymphatic follicles lining the intestinal walls, followed by tubercles in the mesenteric glands, peritoneum, liver, spleen, and general tuberculosis (Klein). Milk which is free from tubercle bacilli, although derived from undoubtedly tubercular cows, has