Striking unanimity exists among the chief authorities as to the virtues of inunction. Fournier, for instance, says¹ that he has perfect confidence in inunction *when well performed*; and, again, that he is satisfied that it is equal to, if not better than, any other line of treatment. Neumann expresses a similar opinion.² It is valuable, I may add, if antecedent morbid states of the stomach or intestine preclude ingestion, and further, when it is required that the stomach should be left free for other remedies.

The Aachen treatment undoubtedly owes its peculiar efficacy largely to thoroughness and close attention to detail, but balneo-therapeutics too have an important share in the results. The sulphur water, unless it directly assists the mercury, would be of secondary importance. But there is evidence that it does so assist. The modern view, as expounded by Chatin of Uriage, is that mercury, shortly after its introduction into the body, is converted into an insoluble albuminate, and is subsequently stored in the tissues as a partially inert body. The H_2S of the mineral water, however, unites with this and converts it into an active soluble compound, which circulates freely and is easily eliminated. Thus in conjunction with sulphur water mercury can be given freely, the ease with which it is eliminated being shown by the amount recoverable from the urine. At the end of a course of mercurial treatment without sulphur water the amount of the metal excreted in the urine has been measured for a series of days, and subsequently during a similar series of days while the patient was taking sulphur water by mouth. During the second period the amount of mercury so recovered was noticeably in excess of that recovered during the first. Consequently, large doses of the metal may be given with the certainty that on the one hand they will not prove therapeutically inert, and that on the other their toxic effect will be minimized. Temporary cessation in taking the waters during inunction is often followed by symptoms—such as lassitude, cramp, etc.—which disappear upon resuming them in proper quantity.

Perhaps the fact that introduction is effected by way of the lymphatic system, the original stronghold of the treponema, and that it enters over such a large area, may explain the rapidity with which early symptoms usually yield to its use, while in such late stages as disease of the cerebro-spinal system its application close to the seat of mischief, by the rubbing of the back, may partially account for the good results, which are possibly assisted to some extent by inhalation of the drug volatilized by the skin.

Many may not be able to go to Aachen. Business and other considerations may interpose, among the others not the least deterrent, perhaps, being the almost inevitable stigma attached to a sojourn in a place with such a very specific reputation. It is thus of practical interest to know that the treatment can be effectually carried out in this country, the Aachen routine being closely followed. The bath salts, drinking water, etc., are procurable here, and can be quite as efficiently administered.

In this account of the various modes of treatment I have endeavoured to deal as fully and accurately with my subject as limitations of space have allowed, but throughout I would have it borne in mind that the corporeal reactions to mercury are apt to be disconcerting. Experience and close attention must go hand in hand if the best ultimate results are to be attained with the minimum of inconvenience.

REFERENCES.

- ¹ British Medical Association, Section of Dermatology, Sheffield.
² Nothnagel's *Specielle Pathologie und Therapie*, second edition, p. 807 et seq.
³ Royal Society of Medicine, Laryngological Section, January 8th, 1909.
⁴ *Deut. med. Woch.*, March 4th, 1909.
⁵ *Maladies vénériennes*, 1908.
⁶ Official Transactions of the International Conference of Dermatology, 1896, edited by Dr. Pringle.
⁷ *Lesser, Deut. med. Woch.*, March 4th, 1909.
⁸ *Treatment of Syphilis*, 1906, translation by Marshall, chap. x, p. 84.
⁹ Nothnagel's *Specielle Pathologie und Therapie*, second edition, p. 800.

THE latest number of the series of bulletins with the title *Experiment Station Work*, issued by the United States Department of Agriculture, contains a note upon the effect of machine milking on individual cows. It appears that not all cows take kindly to machine milking, but that if this method is adopted in the first lactation it presents very decided advantages. For cows that have been accustomed to hand milking the machine does not answer well.

A CASE OF SYPHILIS WITHOUT A PRIMARY CHANCRE.

SYPHILIS D'EMBLÉE, FOLLOWED UNDER TWO YEARS BY REINFECTION.

By A. C. MAGIAN, M.D., B.Ch. VICT.

SYPHILIS D'EMBLÉE is, on the whole, so rarely seen that it is probable that the description of a carefully watched case will be of interest to syphilologists, particularly as it was followed by reinfection.

Two years ago I was visited by a gentleman in a great state of mental distress, who informed me that he was afraid he had contracted a venereal disorder three days previously. He gave me full particulars of the affair, from which it appeared that sexual congress had been very brief, and he had afterwards washed the penis well with soap and water, an interval of about a quarter of an hour having elapsed between the two acts. Before leaving he became suspicious of something wrong, through noticing a rash on the partner's arm and receiving evasive answers to his anxious inquiries. This was only the second time in his life that he had had sexual intercourse, the first occasion having been two and a half years previously, after which no untoward result had followed. He was to be married the following day, and was, in consequence of his doubtful condition, very anxious about himself. I informed him of the impossibility of immediate diagnosis, but cautioned him of the danger of infection; and strictly forbade sexual congress with his proposed wife. A week later he came to me again, this time to confess that under the stress of great excitement on his wedding night he had disobeyed my instructions and without any protection had had intercourse with his wife. He was very penitent for his fault, and appeared crushed when I pointed out to him the risks to which he had subjected his innocent wife. He solemnly declared that there should be no further transgression; but I reminded him that this was now equivalent to locking the stable door when the horse had escaped. Eventually he suggested to me that I should make a thorough examination of him every day, so that if anything developed it might be attended to at once. I refused at first to do this, saying that such a proceeding was unnecessary, and that he might come to see me as soon as he noticed anything himself. My patient, however, pressed the matter so hard that at last I consented to do as he wished. I was the easier persuaded to fall in with his desire as I wanted for my own satisfaction to see the very earliest appearance of a chancre, and fancied that this might give me the opportunity. This went on for a fortnight and nothing was noticed, and I informed him that at any rate he was free from gonococcal infection. A day or two later he informed me that he had been reading about syphilis in a medical book, and had learnt therefrom that sometimes extragenital chancres were developed. He therefore asked me if I would mind making a general examination of his whole body in case this rare occurrence should happen with him. I inquired if he had received any scratches or had practised any abnormal methods, but was assured that he had not. I made the examination he asked for twice weekly, and reduced the examination of the penis to every second day. This went on up to the end of the sixth week, after which a complete examination was made every third day only, as both of us had by that time decided that infection was extremely improbable.

Eight weeks passed, and the gentleman was considered free from any venereal disease, but to be on the safe side was instructed to call once a week for another month, and to report himself at once should anything develop in the meantime. The examinations which I made were carefully done, and I was convinced that nothing had been overlooked. There was no suspicion of a chancre or sore of any kind whatsoever on any part of this patient's body, and urethra, rectum, and mouth were equally free from disease. Yet at the beginning of the eleventh week he came to me with his body covered with a roseolous rash; chest, back, and abdomen were thickly marked, and also the flexor aspects of the arms. The rash slowly altered and became a mixed eruption of papules, pustules, and the original roseola. A sore throat followed, and the unfortunate man lost almost all the hair from the top of his head. At the twelfth week his wife aborted of a 3 months fetus; I therefore put both parties upon active antisiphilic treatment, and gave them instructions as to future marital relations. The husband now began to suffer from extreme depression. Finally, he surprised me by bringing the author of his troubles to be examined, this party having strenuously denied to him that she had ever been afflicted with any venereal complaint. I found marked evidence of syphilis in the presence of mucous tubercles and condylomata.

The further history of the case is as follows: At six months the patient developed a mild attack of iritis, which was quickly cured, but followed by persistent diarrhoea and a small amount of albumen in the urine. Complete intolerance of mercury was the next trouble, although previously the patient had been taking it without any difficulty. I substituted iodides, and for a time all went well, and the diarrhoea and albuminuria disappeared. At nine months an eruption almost exactly like small-pox broke out. This eruption was cured by mercurial fumigation, which the system now tolerated. Mixed treatment with

mercury and iodides was resumed with success, and all went well until the end of fifteen months, when periostitis of the left tibia began, and a small gumma was found in the right testicle. By increasing the dose of iodides both these complications were got rid of. Now with regard to the wife: As far as one could find out—and I may say that I examined her myself once and her husband many times—no sore was ever discovered, but directly after the abortion she broke out in a pustular eruption exactly similar to that which her husband had had. A few weeks later mucous patches on the under surface of the tongue and an ulcerated throat were noticed and treated. She then became suspicious of her husband and left him. This series of disasters almost unhinged my patient's mind for a time, and at one period it appeared inevitable that the man would lose his reason. Eventually, however, he recovered, and then gave himself up to a somewhat fast life, presumably with the idea of forgetting the past. Remonstrance was in vain, and although he continued with treatment under me, he totally disregarded my advice as to his mode of living. The most extraordinary part of the whole affair was still to come. He went back to his former mistress and cohabited with her, and two months ago he presented himself at my rooms and exhibited a typical Hunterian chancre on the glans penis.

Here, then, was a man actually under treatment with mercury and iodides, suffering from undoubted syphilis, and reinfected in a period under two years with the same disease. I temporarily suspended all treatment in order to see what would happen. The chancre became very hard, and the surrounding tissues extremely indurated, and then the patient went through all the programme of the previous infection. He developed roseolar, papular, and pustular eruptions; he began to lose his hair, and ulcers of an undoubtedly specific nature formed in his mouth and throat. I then started treatment energetically with mercurial inunctions and internal medication, and he is now rapidly improving.

In conclusion, I might say that up to the time of the first infection the patient had enjoyed perfect health, and had never had occasion to obtain medical advice. He was an Englishman of good position, 40 years of age, and had been circumcised as a child.

A NOTE ON VERY HIGH SPECIFIC GRAVITY OF THE URINE IN HEALTHY WOMEN.

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THOUGH the following note refers to a subject which is by no means new, there seems to be too little stress laid upon certain normal differences which are apt to be observed between the urines of women upon the one hand and of men upon the other. When one is confronted in a case of examination for life insurance with a urine the specific gravity of which is 1040, one is at first inclined to think that the person who passed that urine must be abnormal, and not unnaturally one tests that urine with extreme care for sugar. The fact that specific gravities of 1035 or even 1040 may occur without there being anything the matter with the person at all is difficult to convince oneself of, until one has seen a number of cases. Such cases, however, do not seem to be very uncommon amongst women. The following instances occurred in the course of examining 150 apparently healthy nurses. In no case was any sugar to be detected in the urine, either by Fehling's or by the phenyl-hydrazine test.

One obvious suggestion is that a high specific gravity of this kind must indicate that the person is drinking far too little fluid, and is therefore passing a very concentrated urine. This is doubtless true to some extent, but it is not entirely true that if a woman drinks a normal amount of fluid per diem she will necessarily have a urinary specific gravity of 1025 or less; for whenever a nurse has been found to have a specific gravity at first examination of over 1030, she has been urged to drink fluids to the extent of at least three pints per diem, and the fluid taken daily has been observed by the sisters in the Nurses' Home. Sometimes the specific gravity of the urine has fallen at once, but by no means always has it become as low as one might have expected. That there was really no disease in these cases has been confirmed by their subsequent course, the nurses in question having remained perfectly well.

Urinary specific gravities of this kind do not occur to any similar extent, I think, amongst men; but, particularly from the point of view of life insurance, it is worthy of note that a specific gravity even up to 1040 is by no means necessarily an evidence of ill health in a woman. It might be added that in the earlier cases it was thought that there must be some error in the recording instruments; but this source of fallacy was excluded by the use of several different urinometers, each of which was tested separately; all recorded similar results for the same urine.

The following cases indicate that it is by no means in hot summer weather only that the high specific gravities occurred:

NURSE LO.			
Date of Observation.	Sp. Gr. of Urine.	Date of Observation.	Sp. Gr. of Urine.
September 6th	... 1040	February 22nd	... 1040
September 20th	... 1040	May 12th	... 1036
September 30th	... 1036	May 25th	... 1030
October 14th	... 1034	July 28th	... 1044
October 29th	... 1040	October 7th	... 1030
November 1st	... 1040	October 29th	... 1034
November 19th	... 1034	December 10th	... 1032
December 3rd	... 1036	February 4th	... 1034
January 20th	... 1028		

NURSE HW			
September 10th	... 1038	May 11th	... 1030
September 15th	... 1036	May 25th	... 1035
September 30th	... 1036	June 17th	... 1028
October 14th	... 1030	June 26th	... 1030
October 29th	... 1030	July 28th	... 1034
November 1st	... 1030	August 16th	... 1020
November 19th	... 1024	October 7th	... 1035
December 3rd	... 1025	October 29th	... 1030
January 31st	... 1030	December 10th	... 1034
February	... 1030	February 5th	... 1031
March	... 1032		

NURSE MY.			
November 1st	... 1040	May 11th	... 1025
November 19th	... 1015	May 25th	... 1030
December 3rd	... 1030	July 28th	... 1028
January 31st	... 1015	October 7th	... 1018
February 14th	... 1028	October 29th	... 1020
February 21st	... 1024		

NURSE SP.			
November 21st	... 1034	February 14th	... 1020
December 3rd	... 1038	February 21st	... 1020
January 31st	... 1034	May 11th	... 1024

NURSE CA.			
November 20th	... 1030	May 11th	... 1020
December 3rd	... 1030	May 25th	... 1028
January 31st	... 1025	June 12th	... 1034
February 14th	... 1020	June 26th	... 1025
February 21st	... 1020	August 12th	... 1020
June 17th	... 1040	October 30th	... 1020
July 28th	... 1026	February 5th	... 1024

NURSE RE.			
November 20th	... 1032	May 26th	... 1010
December 3rd	... 1028	June 26th	... 1020
February 7th	... 1030	August 12th	... 1034
February 24th	... 1030	February 5th	... 1033
May 12th	... 1012		

NURSE LA.			
December 6th	... 1040	June 12th	... 1035
February 21st	... 1010	June 30th	... 1034
March 19th	... 1030	July 28th	... 1035
April 17th	... 1038	August 16th	... 1035
May 12th	... 1035	October 30th	... 1025
May 26th	... 1038	March 30th	... 1025

NURSE PR.			
January 17th	... 1034	August 16th	... 1032
February 27th	... 1035	February 3rd	... 1024
May 26th	... 1035	March 30th	... 1028
July 28th	... 1035		