size, unctuous, concrete, adipose matter appeared; possibly the fluid may have become inspissated by absorption or exudation, or hydatids of a later growth, containing the more solid product, may have been generated. The presence of these cysts in the uterus occasioned much local pain, most distressing vomiting, sometimes continuing for four or five days with scarcely any intermission; paroxysms of hysteria in its most aggravated form, the patient remaining for some hours in a state of unconsciousness, or at times so convulsed as to require coercion to prevent her inflicting injuries on herself and others. Her screams at such times were so loud that the neighbours became oftentimes alarmed. There can be little doubt that the rupture of the cysts on the 13th of September expedited her recovery, for from that date the pain, vomiting, and hysteria became less urgent, and she had no further relapse. With the exception of the loss of blood that occurred on the rupture and expulsion of the hydatids, I had no grounds for believing that the continued hæmorrhage was dependent on the growth or separation of these bodies. The loss of vision was a peculiar complication, and rendered her confinement truly irksome; for the space of nearly two years she had neither the satisfaction of seeing her friends nor any external object. The above case is not without interest, and offers many points for consideration and profitable discussion.

Notting-hill, 1850.

ON A JAPANESE REMEDY FOR STERILITY.

By E. WILLIAMS, M.D.

AFTER twenty years' absence from my native land, during which time I have resided in the various islands of the Pacific Ocean and the Eastern Archipelago, anxious for information bearing upon my profession, as I have always been, I could scarcely avoid picking up at various times many matters of practical importance, as well as some curious information of the mode of treating diseases, more particularly amongst the Japanese and Chinese. The results of my inquiries I will, with permission, forward (as I have leisure) to THE LANCET, which has from time to time linked me to home while sojourning in these distant lands.

Amongst the many botanical remedies that popular experience has made common in Japan and China is one that is believed to exert specific influence upon the uterus, more particularly in cases of sterility and checked menstruation; and from the numerous cases in which I have administered it with advantage, I am inclined to think it will become a valuable addition to our *materia medica*.

The tree from which the preparation is made that possesses the virtues ascribed to it is, no doubt, one of the order *Ternstromaceæ* of Jussieu, growing to the size of the English laurel, with leaves somewhat larger than the congou tea, and botanically it may be described as leaves lanceolate, alternate, serrated, downy on the under side, and emitting when bruised a strong odour resembling pulegium and sabina. Its properties are said to vary considerably with the age of the tree, likewise as to its being gathered at the full or wane of the moon, and as to the season of the year. It is perennial, and grows best in moist and sheltered places.

The mode of preparation is to take a quantity of the leaves, macerate them in as much rice-spirit (*samshu*) as will just moisten them for six hours; then express and give about a teaspoonful every hour, and two or three doses will invariably bring on the menstrual secretion, which can be maintained by a dose or two daily for any length of time.

Females in the healthy state are expected to menstruate in their eighth year in Japan and China, and should they not do so they are ineligible for betrothal; therefore recourse is had to the *key tu sing* with certain results.

To ensure its success, according to popular belief, the leaves must be gathered by a virgin the while using certain cabalistic formulæ, at the full of the moon, and during the burning of a certain number of highly perfumed jop-sticks.

When required for the purpose of obviating sterility, the tree must be in its second year, and also gathered with certain prescribed formulæ at the wane of the moon, and equal parts of the root must be added to the preparation, which is made in the same manner as the preceding receipt.

That the root is aphrodisiac in its effects I have not the slightest doubt, as I have administered it to animals with obvious results, and without any ill effects even to mules and castrati.

Having brought home some of the plant, and various drawings, which I intend sending to the Medico-Botanical and other learned Societies, as well as sufficient to ensure a rea-

sonable trial of its effects in this country, I shall feel happy to forward some of the preparation to any established member of the profession, on the promise of his giving me the result of the trial, and presenting it according to the instructions I will forward with it.

Upper Clifton-street, Finsbury, 1850.

Foreign Department.

Action of Senega, Oxy sulphuret of Antimony, Hydrochlorate of Ammonia, Colchicum, Belladonna, Antim. Potass. Tartras., Flores Sulphuris, Acetas Potassii. By Dr. BOECKER.

IN the second volume of his "*Beitraege zur Heilkunde, Crefeld, 1849*," the first of which has been noticed in THE LANCET for 1850, vol. i., No. 4, the author enters into a minute examination of the action of the above-mentioned medicaments, with reference to the changes produced by them in the constituents of the urine, the exhalations of the lungs, and the blood. The indefatigable perseverance of the author has furnished us with a great many analyses, which clearly show the effect of these agents, and it becomes evident from this work, how little we really know at present of the intimate nature of such effects; also, that we are far from any certainty as to therapeutical principles, and that this method of analysis is the only one which can lead to the improvement of our knowledge of the real effect of medicaments, and to the setting aside those doubts as to the proper treatment of diseases, too well known as the torment of every conscientious and scientific practitioner. We are much indebted to Dr. Boecker for the real improvement of therapeutical principles, which we owe to him, though we may not be always able to coincide with his theoretical views. Those who desire to become better acquainted with these theoretical opinions must refer to the volume itself; the actual results of examination—that is to say, the facts adduced by Dr. Boecker are mainly as follow:—

1. *Radix Senegæ.*

a. *Examination of the Urine.*—The author, on two different occasions, submitted himself, and once a female patient, to a course of *radix senegæ*; he used from six to seven ounces of the decoction, daily, made with from half an ounce to one ounce and a half of the root. It was found then, by nineteen analyses of the urine, passed during the use of the decoction, and by the comparison of those with the results of seven analyses of urine, passed when no medicine was taken, that the *radix senegæ* has only a very slight influence on the constituent parts of the urine; it became evident that the decoction did not lessen the quantity of any of these constituents, but, on the contrary, the quantities of urea, uric acid, the phosphates, volatile salts, and extractive matters, were slightly increased, especially that of uric acid.

b. *The examination of the pulmonary exhalations* were conducted very carefully, and in comparing the results with those obtained before and after the use of *senega*, it appeared that the decoction increased the volume and the density of the exhaled air; the exhalation of carbonic acid being remarkably augmented during the use of the decoction. At the same time the frequency of the pulse diminished somewhat, and Dr. Boecker adds, as a general result of 800 examinations of the proportion between the quantity of exhaled carbonic acid and the frequency of the pulse, that the latter decreases as the former increases. The aqueous exhalations of the lungs were not remarkably altered.

c. *Examination of the Blood.*—Dr. Boecker, in all his observations, examined the blood by the microscope, as well as by chemical analysis, and by the latter he confirmed the quantity of solid matters and water of the defibrinated blood, of the solid matters and water of the serum, of the albumen of the serum, of the salts and extractive matters of the whole amount of the serum, of the fat, of the fibrine, and of the blood-globules. He adduces the results of fourteen examinations of blood, taken from seven individuals, who had been subjected to the action of the decoction of *senega*, the chief of which are the following. The fibrine often increases in quantity, but often also decreases; the solid materials of the blood are somewhat diminished; the relative proportion between albumen and inorganic constituents, and extractive matters likewise diminishes; the crassamentum, and the serum itself, increase in proportion. During the use of *senega*, the blood taken from the vein becomes more reddened by contact with the air than before or after its employment. Hence, Dr. Boecker adds, as the general result of his examinations, the decoction of *senega*-

root especially influences—that is, increases the exhalation of carbonic acid; thereby it increases the consumption of blood-globules, and likewise the activity of the mucous membrane of the lungs. According to these results, he recommends the administration of senega in diseases which are founded on a hyper-carbonized or melanotic state of the blood.

2. *Oxysulphuret of Antimony*.—For the purpose of examination of the urine, Dr. Boecker subjected himself alone to the use of the oxysulphuret of antimony. He took from twelve to thirty grains of this medicine daily, and during the time, instituted nine analyses of his urine; two analyses were made before, and one shortly after, the experiments. It became evident from them, that during the use of the oxysulphuret, the quantity of all the constituent parts of the urine was increased, of the organic compounds, as well as of the inorganic parts, (p. 101.) Especially it ought to be mentioned, that the quantity of sulphuric acid amounted to nearly twice its normal proportion.

From observations concerning the exhalations of the lungs during the administration of oxysulphuret of antimony, it appeared that the amount of exhaled carbonic acid was increased, both directly and indirectly. The amount in 100 parts of the exhaled air increased in a proportion of 100 : 151, the whole quantity of exhaled air in a proportion of 100 : 116. The inverse ratio was observed after the oxysulphuret had been omitted. The frequency of the pulse was slightly diminished; only a slight increase took place at the commencement of the experiments. The amount of the watery portion of the exhalations did not show any remarkable alteration.

The blood of thirteen venesections instituted upon six individuals was examined. It was found, that the solid matters of the whole, and of the defibrinated blood, as well as of the serum, decreased in quantity. The amount of fibrin and blood-corpuscles did not always show any remarkable alteration. By the microscope, Dr. Boecker detected, that the amount of dark blood-globules, unfit for the reception of oxygen from the atmosphere, was diminished, and the blood more easily reddened by contact with the air.

The chief result from all these examinations is, that the oxysulphuret of antimony increases the consumption of the blood-plasma, (fibrin and albumen,) and of the blood-corpuscles; but it ought to be considered, that an effect of the remedy can be only expected if it be taken in larger doses than generally employed, as of from twenty to twenty-four grains per diem.

3.—*Hydrochloras ammoniac*.

Dr. Boecker took, in twenty-four hours, from two drachms to half an ounce of hydrochlorate of ammonia, and continued the use for ten days. He examined his urine before and after the use of the remedy. From ten analyses of urine it became evident, that all its constituent parts had increased, except the uric acid, the amount of which was somewhat diminished.

The quantity of the exhaled carbonic acid was somewhat increased at the beginning of the observations, but only relatively, that is to say, the whole quantity of the exhaled air decreased; the number of inspirations was somewhat lessened, the frequency of the pulse likewise; in the latter stages of the observation, the amount of carbonic acid decreased. Dr. Boecker, on this occasion, enters into an accurate explanation of the ratio between the pulse, respiratory movements, and exhaled carbonic acid, which is deserving of particular notice.

The blood of twenty general bloodlettings, exhibited in eleven individuals, was examined; also the effect of hydrochlorate of ammonia on the blood of twelve frogs was observed, and from all these examinations it resulted, that this remedy remarkably promotes the consumption (secondary assimilation) of the plasma of the blood. The amount of globules diminishes at the commencement of its administration, but increases again at a later period. On this head, it ought to be mentioned, that the effect of hydrochlorate of ammonia is different in the different periods of its administration; both the blood-globules and the plasma being diminished at the beginning; in a later period only the plasma exhibiting a decrease, whilst the amount of globules becomes augmented.

The well-known fact is then confirmed by the author, that hydrochlorate of ammonia generally promotes the action of the mucous membranes, especially that of the mucous membrane of the lungs. But Dr. Boecker is the first to draw attention to the remarkable harmony between the observed decrease of the amount of plasma of the blood, and the increase of the action of the mucous membranes, the secretions of which are to be considered as resulting from the plasma itself.

4. *Colchicum*.—Dr. Boecker selected from amongst several

preparations of colchicum the tincture of the seeds (Pharm. borussic) for his observations. He instituted a double series of examinations of the urine, and thus tried the effect of colchicum in two healthy persons. From one to two drachms of the tincture were taken in twenty-four hours. By all the examinations it was found that the solid matters, both generally and with respect to the amount of urea and uric acid, were slightly diminished. The earthy phosphates and the other salts scarcely exceeded the healthy average in the one series; they decreased in the other. But it ought to be considered that the use of colchicum, in the one case, caused an increase of motions of the bowels, and even diarrhoea, so that the constituent parts of the urine might be believed to have been diminished, in this case, in consequence of the loss of substance by the bowels. As the general result of the analyses, Dr. Boecker considers that the use of tincture of colchicum has but a very slight effect on the constituent parts of the urine; and in case it should be found a diminution of any of these parts, he believes it to be caused by an increase of the action of the bowels. Dr. Boecker especially mentions that he could not detect any diuretic effect of the use of colchicum—an effect formerly generally ascribed to this remedy by pharmacologists.

The observations on the exhalations of the lungs, and of alterations taking place in the blood during the use of colchicum, (thirteen analyses of blood, taken from seven persons, having been instituted,) were the following:—

At the commencement of its employment, the exhaled carbonic acid is slightly augmented in proportion; it remarkably decreases after it has been persevered in for a few days. The quantity of melanotic blood-globules (globules unable to combine with the oxygen of the air) is somewhat diminished. In accordance with these results, Dr. Boecker announces that the secretion of bile increases by the use of colchicum. This became evident from the author's observations, and it agrees with his views respecting the destruction of melanotic blood-globules in the hepatic system, as approved or advanced by many other physiologists. The globules are believed to be destroyed in the vena portæ, and to afford, in this way, a part of the materials for the formation of the bile. The very effect of colchicum on the secretion of bile, however, does not take place until a later period of its administration; in the earlier stages, the activity of the skin and the lungs are equally increased with that of the liver.

The solid matters of the blood, of the serum, as well as of the defibrinated blood, have been found diminished in quantity. It results generally, from Dr. Boecker's examinations, that in the beginning of its use the tincture of colchicum increases the exhalations of the lungs, the skin, and the secretions of the liver; but by a few days' continued use, the effect on the secretion of bile becomes more apparent, and ultimately causes a diminution of the exhalation of carbonic acid from the lungs. With regard to the utility of colchicum in gouty and rheumatic affections, it is impossible to give any brief explanations of Dr. Boecker's views, and on this head we must refer the reader to the work itself.

5. *Belladonna*.—It was found, from five examinations of the urine of a healthy man, who took from a grain to a grain and a half of the extract of belladonna in twenty-four hours, that the whole proportion of solid matters increased during its administration. The urea, mucus, combustible salts, and extractive matters increased; uric acid, and the non-combustible salts became somewhat diminished in proportion. The remedy is therefore considered by Dr. Boecker as promoting the assimilation and the waste of the plasma of the blood. Respecting the exhalations of the lungs during the use of belladonna, the quantity of carbonic acid was found augmented at the beginning of the experiments, but afterwards, and during the administration of larger doses, it was diminished in quantity. From the analyses and microscopical observations of the blood it became evident, that the quantity of melanotic blood globules and of solid matters of the blood decreased, a result which is quite in accordance with those elicited from the examinations of urine and exhaled air. Dr. Boecker adds, that the use of belladonna promotes the secretion of bile, and he observed an increase in the alvine evacuations nine times out of ten cases during its administration. He is of opinion, that by the use of belladonna the blood-globules are first influenced, and that afterwards the plasma is likewise affected, the waste of both being increased.

6. *Antimonii Potassio-tartras*.—Dr. Boecker examined his urine nine times during the use of the potassio-tartrate of antimony, and performed analyses before and after the same; he took every day from about four to eight grains of the prepara-

tion. From these examinations, it resulted that the whole quantity of solid matters, especially the quantity of urea and combustible salts, was diminished during the use of the antimony. Notwithstanding, Dr. Boecker is of opinion that their relative proportion increased, since the appetite was nearly lost during the time of taking the antimony, and the quantity of food taken, consequently, much less than usual, and also less than at the time of the examinations of the healthy urine being made. With respect to the effect of the preparation on the respiration, the exhalations of the lungs, and the frequency of the pulse, it resulted, that the inspirations became somewhat less frequent, their intensity being, on the contrary, slightly increased; that the proportion of carbonic acid in 100 volumes of exhaled air, and equally the whole quantity of carbonic acid, which was exhaled in one minute, increased; that no alteration took place in the quantity of exhaled watery parts, and that the frequency of the pulse decreased, its intensity being somewhat more marked. The results of the examinations of the blood confirmed the results of the analyses of the urine. It was found that the antimony increases the waste of the constituent parts of the blood, especially that of the blood-globules. Dr. Boecker always observed a decrease of melanotic blood-corpuscles after the use of antimony, and took his results out of six observations. As the general result of these observations, the author supposes that the potassio-tartrate of antimony first influences the blood, and thence causes many functional alterations, especially of the stomach, liver, pancreas, &c.

7. *Flores Sulphuris*.—The effect of sulphur upon the constituent parts of the urine is not very remarkable; generally the solid substances are increased in proportion, and especially the amount of urea and uric acid, the other constituents being augmented in one case, and diminished in the other. The exhalation of carbonic acid by the lungs is remarkably increased, and especially so at the commencement of the use of sulphur, and when taken in small doses; afterwards, and on the administration of larger doses, the exhaled carbonic acid diminishes, which effect is attributed by Dr. Boecker to the increased action of the liver, a point which we have above alluded to. The quantity of melanotic blood-globules diminishes in the same proportion as the exhalation of carbonic acid increases, and generally it is observed that a proportionate decrease takes place with respect to the solid substances of the blood, the serum, the albumen, the fat, the fibrin, the blood-globules, and the crassamentum. These results of examinations as to the effect of sulphur agree very well with those obtained in the practice of physic, and well known to every practitioner. We ought therefore the more to appreciate the researches of Dr. Boecker, who has been the first to present us with a scientific explanation of well-known and important facts.

Lastly, Dr. Boecker examined the effect of acetate of potash, but as yet he has not obtained results sufficiently mature for publication.

As the author, in the first volume of his "Beitraege zur Heilkunde," shows a certain number of substances, as sugar, coffee, alcohol, &c., to have a retarding influence upon the animal functions—that is to say, the effect of modifying the nutritive phenomena, so, in this second volume, he gives explanations with respect to the opposite effect of a certain number of well-known and generally used medicinal remedies. The profession are obliged to the author of these observations and results, which are founded on facts, and contribute to remove that dense, heavy nimbus which generally is called science, but is really nothing but a cover for the want of science. We agree with the author in wishing that many of his professional brethren would endeavour to promote science in the same path.

German Hospital, Dalston, 1850.

DR. BENEKE.

THE SALTS OF MORPHIA.—M. Mialhe, of Paris, is of opinion that opium, either in the shape of extract or tincture, ought to be entirely discarded from practice, as the proportion of active principles in this drug is extremely uncertain, both from natural causes, and through adulterations. He has found that in the various kinds of opium of commerce, morphia varies from seven grains and a half to eight scruples per three ounces and a half; or, in other words, from one-half to ten per cent. In adulterated specimens—namely, in a substance which merely imitated opium—he has found only six parts of morphia in 5000. M. Mialhe infers that morphia alone should be used in medicine, and that this principle should drive away opium, as quinine has replaced bark.

Hospital Reports.

ABERDEEN INFIRMARY.

(Communicated by WILLIAM PIRRIE, Esq., F.R.S.E., Regius Professor of Surgery at Marischal College, Aberdeen.)

LITHOTOMY, FOLLOWED BY PHLEBITIS; RECOVERY.

SEEING IN THE LANCET of the 20th July the account of a case of phlebitis, commencing in the calf of the leg, a fortnight after the operation of lithotomy, by Mr. Bransby Cooper, I think it may not be uninteresting to record a case which in many respects, though happily not in the fatal issue, bears a striking resemblance to the one referred to above.

On the 29th of June last I performed, in the Aberdeen Infirmary, the lateral operation of lithotomy, as practised by Mr. Liston, on two men, who had laboured under stone for a considerable period.

One of these, George B—, aged fifty-eight, fisherman, from whose bladder one calculus was taken, left the hospital, cured, on the 16th July, seventeen days after the operation.

The other patient, Charles H—, to whom this communication more particularly refers, is a country blacksmith, sixty-nine years of age, fat, cheerful, and healthy-looking. Two calculi were removed from his bladder with great facility, and all went on without a single untoward symptom, general or local, until the thirteenth day after the operation, when a severe attack of phlebitis interrupted his recovery. It commenced in the calf of the left leg, and extended up the posterior and inner aspects of the thigh, the upper third of the latter remaining for some days quite unaffected; and great pain was felt along the course of the veins. Shortly afterwards the whole limb became enormously swollen and exceedingly tense. The attack was characterized from the first by very great depression, which forbade any form of depletion. The treatment accordingly consisted of, attitude so as to relax the inflamed vessels and favour return of the venous blood, large blisters to the back of the leg, fomentations and poultices. Mercury was given at first, but was soon succeeded by wine.

At the present date (31st July) all signs of active inflammation have disappeared for several days, and the swelling and tension of the limb have completely subsided. The depression also, which accompanied the phlebitis at its advent, has along with it passed away. The wound was unaffected throughout, and is now almost healed, all the urine coming by the urethra, except a few drops which occasionally appear in the perineum.

Though accustomed frequently, both in hospital and private practice, to administer chloroform in lithotomy and other painful operations, I did not employ it in either of the above instances, refraining from its use, as I often do, where the patient is advanced in life, and the operation is expected to be brief.

Between Mr. Bransby Cooper's case, and the one narrated above, two points of difference will be observed.

First. In the former, four days after the operation, some urine became infiltrated into the cellular tissue of the perineum, which led to sloughing of part of the scrotum, this happening before the occurrence of phlebitis, while in the latter, the wound has not been affected in the least degree since the operation, farther than, no doubt, having its closure much retarded by the phlebitis and consequent constitutional disturbance.

Second. In the former the severity of the disease, which latterly was not confined to one limb, proved speedily fatal in spite of all treatment, while in the latter the disease happily did not extend beyond the first-affected extremity, and was subdued by the suitable remedies, though for a few days the issue of the case was very doubtful.

I will now briefly advert to the points in which the two cases resemble each other.

1st. In both of them phlebitis commenced a fortnight (sixteen days in Mr. Cooper's case, thirteen days in mine) after the operation of lithotomy. 2nd. The part first attacked was in each instance the calf of the leg; and, 3rd, it may be proper to add that in neither had anæsthesia been induced. I have never previously observed phlebitis in such a situation after lithotomy, and where, as in the present case, the wound and surrounding parts remained healthy throughout.

There has been only one case of pure phlebitis (which was traumatic) in the Aberdeen Infirmary lately, but several have occurred in connexion with erysipelas, which has been rather prevalent for some time.

July 31, 1850.