was being compressed by Heath of Manchester for aneurism of the common femoral, when death resulted from rupture of an unrecognised abdominal aneurism above the point of compression. In my case, the rupture took place into the retroperitoneal tissue; and, therefore, death did not at once result, but a false aneurism was formed, which attained an enormous size. It is worthy of note, however, that in cases of distal ligature at the root of the neck, there has often not been increased pulsation in the sac, but, on the contrary, a speedy diminution in both the impulse and the size of the aneurism. Thus, while fully recognising the risks accompanying distal compression of the aorta, we are justified in adopting this treatment with some hope of success; and more especially because we have to do with a disease that is almost invariably fatal—it may be very speedily—if left to itself. I do not consider that my patient's life was materially shortened by the result of the treatment, seeing that he lived seven weeks after it, and that, when it was adopted, the aneurism was making rapid progress and the patient was apparently fast dying from exhaustion.

A CASE OF DIVIDED UTERUS AND VAGINA.*

By JAMES MURPHY, B.A., M.D.,

Lecturer on Botany at the University of Durham College of Medicine,
Newcastle-upon-Tyne.

As cases of divided uterus and vagina (a condition normal in the marsupialia) are not very common, and as they possess a certain amount of interest from an embryological point of view, I am anxious to place on record a case that has recently been under my care, in which both these conditions were very well marked.

But, first, I may say a few words on the etiology of this malformation. The whole female genital canal, from the vulva to the fimbriated extremities of the Fallopian tubes, is formed out of two (originally separate) tubes, called, from their discoverer, "Müller's ducts". Now, while the upper portions of these ducts, which go to form the Fallopian tubes, remain separate, under ordinary circumstances the lower portions, which go to form the uterus and vagina, become as it were fused together at the eighth week of embryonic life; and it is when they fail to coalesce that we have developed those conditions which are known as uterus septus and vagina septa.

Mrs. T., aged 32, married for seven years, never pregnant, consulted me a little time ago about a cyst in her right labium; and, on examination, I also found the following conditions present. A septum, springing from each labium minor, a little anterior to the fourchette, extended to the uterus, completely dividing the vagina into two portions: an anterior and larger canal and a posterior and smaller one. This septum, which was at its commencement about a tenth of an inch in thickness, but gradually became thinner as it approached the womb, was composed of a strong dense tissue covered with squamous epithelium, composed of those large cells peculiar to the vagina, with the mucous membrane of which it was continuous. The anterior canal was slightly smaller than a normal vagina, and the posterior one something smaller than its fellow, but the two combined were not much larger than an ordinary vagina; for, when one canal was dilated it encroached on the other, as the septum could be stretched to a considerable extent. The vulva was normal, and the carunculæ myrtiformes were well developed round the commencement of each vagina, so that it is probable a double hymen existed. In the anterior canal was a cervix, quite normal as to situation and form, but the size a little less than usual. Through the os a sound could be passed to the extent of about two inches, but there was a slight amount of stenosis present. In the posterior canal, a small short cervix could be felt, crowded up to the anterior superior corner of the canal, and through the os a small sound could with difficulty be passed for about an inch and a half. To determine if the uterus were divided, I passed a sound through each os, and endeavoured to touch one sound with the other; and as I failed to do this, after several patient and careful trials, I think I may fairly assume that the septum exists in the uterus also. By placing two fingers in the anterior canal against the anterior portion of the womb, and pressing the fingers of the other hand on the abdomen, well down behind the uterus—i. e., by the conjoined method of examination—I could make out the fundus, which appeared quite normal, and, as well as I could determine, there was but one ovary on each side, as would be expected. By changing the hand on the abdomen to the anterior surface of the uterus, and introducing a finger into the posterior canal, the double cervix seemed once and a half as large as usual. Being anxious to determine whether she menstruated from both wombs, I requested her to come back during

a monthly period; and, on examination with a speculum, I found the catamenial fluid flowing copiously from the anterior os, and very slowly, but still distinctly, from the posterior one.

The patient was not aware of anything being amiss, except the cyst, and that she had suffered from dysmenorrhœa for the last year, which

was owing to the stenosis existing in each os. I purposely dilated the anterior one first, without interfering with the other, when the dysmenorrhœa was much relieved, but still existed to a slight degree. I then dilated the second os; and she has been quite free from pain during the four periods that have since elapsed.

The accompanying drawing, which is fairly accurate, will convey a better idea of the case than I have been able to do by words.

BATH THERMAL MINERAL WATERS: THEIR USES AND ABUSES.

By A. B. BRABAZON, M.D.,

Physician to the Bath Mineral Water Hospital.

III.

Diseases of Skin.—The types of cutaneous affections which commonly are presented for treatment in the Bath Mineral Water Hospital belong to the pustular, papular, vesicular, and squamous classes. I have also seen one or two examples of the class bullæ. Under the head of pustular, I find acne, impetigo, or impetiginous forms of eruption, affecting various parts of the body. Of the vesicular class, eczema contributes the most numerous examples; of the squamous class, lepra and psoriasis are most abundant; lichen generally represents the papular form; and the class bullæ is occasionally represented by cases of pemphigus, though the occurrence is unfrequent.

I regret that a large number of cases are discharged under the simple head of "Skin-disease", but as to more determinate classification are "anonymous". I think I may confidently say that these cases may be considered as coming collectively under the classes above named, although I am unable to place them in a more decided classification. Of pemphigus, I have had under my own care two most decided cases, in both of which, rather contrary to my expectation, the eruption rapidly disappeared under treatment. Of the pustular class, I find cases of acne discharged cured, but whether acne simplex or acne indurata is not mentioned. I should, from the pathology of the disease, expect such a result. I find also cases of impetigo, or impetiginous eruptions, discharged cured or much better; and my personal experience

* Read before the Northumberland and Durham Medical Society.

fully corroborates the truth of these recorded results in this treatment of such diseases. With regard to eczema, the number of cases discharged is, I think, sufficient whereon to form practical conclusions; in fact, my personal experience fully corroborates the facts, and I think my testimony may be accepted as unprejudiced, when I state that my anticipations led me to expect a totally different result. I hardly expected that any case of eczema would be benefited by a course of treatment apparently so opposed to that approved of by Mr. Erasmus Wilson, whose advice I have frequently followed with success. I am happy to say that there is nothing in the present instance to cause me to underrate that advice or to alter my usual treatment.

I have had under my own care in the hospital some most troublesome cases of this most troublesome disease; and I have found these cases most decidedly improved by: 1. the internal administration of the waters; 2. deferring their external application until the more acute local symptoms had entirely subsided; 3. following out Mr. Wilson's expressed advice, viz., to keep the surface as dry as possible and unwashed. I have found the constant application of a powder composed of equal parts of finely powdered oxide of zinc and starch most useful in protecting the skin.

I find that twenty-one cases marked "eczema", consisting of twelve males and nine females, were discharged during the year ending May 1877. Taking the males first, five were discharged under twenty, of which number two were "cured" and three "much better"; giving a percentage of 40 per cent. "cured" and 60 per cent. "much better". As only one female was discharged under twenty, we will pass on to the double decade between twenty and forty. Two females were admitted at this period of life, both cured. Between forty and sixty, on the male side, three out of four were discharged "much better", equivalent to a percentage of 75. On the female side, at the same age, one out of four was discharged "much better", being equivalent to 25 per cent. Passing by the term "better" as of equivocal value, let us inspect the quantities under the more important term, "no better". Among males, there was only one discharged under this head, aged between forty and sixty; being one out of four admitted at the same age, equivalent to 25 per cent. "no better", against 75 per cent. "much better". Females appear less fortunate, as at ages between forty and sixty two out of four were discharged "no better", equivalent to 50 per cent. In other words, the chances of improvement in males compared with females, both being aged between forty and sixty, are as two to one in favour of males. Looking to the sum total of results and finding the proportions, males and females, taken collectively, to be 12.5 per cent. discharged "cured", against 4.2 per cent. discharged "no better", I think I am entitled to the verdict of an impartial jury in favour of the proper use in eczema of the Bath Mineral Waters, for which I can assure my readers I am no special pleader.

Under what I have termed "anonymous" skin-diseases, thirty-five were discharged, twenty-one males and fourteen females. As I have already said, these were most probably, indeed I might say almost certainly, composed of those forms of cutaneous disease, which I have mentioned as usually submitted to treatment in this hospital. I believe we may take the numbers relatively to accord with the numbers admitted of the subjoined classes of disease.

Lepra.—Males, 1; females, 4; total, 5.

Psoriasis.—Males, 2; females, 5; total, 7.

Eczema.—Males, 12; females, 9; total, 21.

Diseases not named.—Males, 21; females, 14; total, 35.

All diseases of skin included make a total of 68; to which lepra contributed 7.3 per cent.; psoriasis, 10.2 per cent.; eczema, 30.8 per cent.

I need not occupy the time of my readers unnecessarily by entering into details of this unclassified group of skin-diseases. I shall only point out, for their consideration, the percentage of cured and no better, and leave it to them to draw their own conclusions. Percentage of cured, total of both sexes, 48.5; no better, 0.

As to the benefit derived in cases of lepra and psoriasis, even when of an aggravated form, there is no possible doubt, at least in my mind.*

Diseases of Specific Origin.—I have now arrived at the consideration of the diseases which I have termed as arising from specific causes, such as poisoning from lead, mercury, arsenic, etc. We may also, for the sake of convenience, include cases of syphilitic poisoning. Cases of lead-poisoning, in point of number, stand by far first on the list; in fact, as a rule, the hospital is seldom without several specimens presenting different forms and complications. Thus we find paralytic or semiparalytic conditions, varying from comparative to complete loss of

muscular power, as in wrist-drop, when, in some instances, the patient has not power to hold a pen.* We also find, occasionally, lead-colic. As to complications, we find lead-poisoning very frequently associated with gout and rheumatism; so frequently, that I am disposed to think that it may sometimes act as the specific cause. The well known condition of gums, diagnostic of lead-poison, is rarely absent. I have even found it where no special symptoms had presented themselves, and where the patient had been admitted as suffering from gouty or rheumatic pains in the joints or limbs. It is occasionally very difficult to arrive at the source from which the poison was procured; nor is it to be supposed that the effects of the poison are confined to painters, or those whose daily occupation brings them into absolute contact with the metal; we frequently find them in agricultural labourers, who can give no clue to the real history of the case. I presume that in such cases the metal is introduced into the system in the way of food or drink. During two years, ending May 1877, forty cases of lead-poisoning were treated in and discharged from the hospital: thirty-seven males and three females. There were no cases under twenty. The largest number discharged was between the ages of forty and sixty, being males; and the averages per cent. in proportion to numbers discharged, at this age, were 10.8 "cured" and 75.6 "much better". There were none discharged "no better". The total average per cent. of cured males and females collectively, is 12.5. As might be expected, the number of females treated in the hospital for lead-poisoning is too small to attract any special attention or to form a basis for any definite conclusions.

Cases of mercurial or arsenical poisoning are rarely admitted. I can find but one mentioned of mercurial (quicksilver) poisoning, and this patient was speedily discharged, having shown symptoms of suicidal mania. In speaking of arsenical poisoning, I only allude to arsenical poisoning from wall-paper, of which, during the year, there has been no case recorded.

I shall conclude with a few observations on syphilitic cases. Cases of syphilis, *per se*, are not usually admissible to the hospital, but we find many cases in which, to say the least, a strong suspicion of syphilis underlies the apparent symptoms, which are usually of the rheumatic type. Patients are very reticent indeed on the subject; and it is only by careful examination and cross-questioning of the patient, that one can arrive at the truth. The cases of this kind which have come under my notice, have certainly derived benefit from mineral water treatment. In private practice, I have met with two or three cases of aggravated tertiary symptoms, such as nodes, diseased bone, rupia, emaciation, nocturnal pains, etc. As a rule, in these cases, the warm baths were most efficacious, particularly in relieving the nocturnal pains; but great care is necessary in their administration, as, if taken too frequently or at too high temperature, they will certainly increase the severity of the hectic fever usually present in such cases, and cause greater emaciation and consequent debility.

I have now finished the task which I set before me, viz., that of attempting to establish, by statistics, some rule for guidance in selecting or advising patients as to the propriety of submitting themselves to treatment by the Bath Mineral Waters. I hope I have so far fulfilled my mission as to place before my readers these statistics in such a form that, given disease, with age and sex, a glance at the table annexed (Table I) may enable them to arrive at a fair conclusion as to the possibilities or probabilities of relief or permanent improvement on the one hand, or as to the inutilty and waste of time in seeking cure or relief under the circumstances, which rendered the realisation of such an expectation improbable, if not impossible.

As regards the *modus operandi* of the Bath Mineral Waters, I wish I could throw any scientific light on the subject, but at present, at least, I have not the data sufficient to work on. These necessary data will require very close observation, and, above all, careful quantitative analysis of the urine. I hope at some future time I may be able to add my mite of information on the subject. There can be no doubt that the therapeutic action of the waters, used internally, is largely due to the action on the kidneys and renal secretion, and also on the gastrointestinal mucous membrane; in other words, the action is one of elimination through these channels; and in addition to these effects are to be considered the antacid or tonic effects of alkaline-chalybeate waters. The effect of the baths, or external application of the waters, is also that of elimination by the skin, as well as producing softening and absorption of effused material when it can be absorbed. There is one peculiar effect of these waters when first used, and not wholly an agreeable one to the patient, namely, an aggravation of the local symptoms, increased pain, and often increased swelling in cases of gout or rheumatism. This fact would appear to favour the theory of

* Since writing the above, I have had admitted under my care a case of congenital "ichthyosis". Three other members of the family are similarly afflicted.

* Since writing the above, I have had admitted under my care a well marked case of paralysis of the extensor brevis digitorum pedis from lead-poisoning.

TABLE I.—*Bath Mineral Water Hospital.*—Statistical Results of Treatment of Disease, with Percentages.

	Result.	A.—Numbers Discharged at the several Ages.										B.—Percentage of Results of Treatment according to Age, for Males and Females separately.										C.—Percentages in proportion to discharges for Males and Females separately and collectively.			Number of Cases Discharged.
		Males.					Females.					Males.					Females.					M.	F.	Total.	
		Under 20.	20 to 40.	40 to 60.	Over 60.	Under 20.	20 to 40.	40 to 60.	Over 60.	Under 20.	20 to 40.	40 to 60.	Over 60.	Under 20.	20 to 40.	40 to 60.	Over 60.	Per cent.	Per cent.	Per cent.					
		Totals.																							
ECZEMA.	Cured	2	..	..	..	1	2	..	1	40	..	..	..	100	100	..	50	16.6	44.4	28.4	Males ..12 Females.. 9				
	Much better.	3	1	3	1	..	..	1	1	60	100	75	100	..	..	25	50	75	22.2	52.3					
	Better.....	..	..	..	..	..	..	1	..	..	..	..	..	..	..	25	..	..	11.1	4.7					
	No better...	..	..	1	..	..	..	2	..	..	..	25	..	..	..	50	..	8.3	22.2	14.2					
	Total	5	2	4	1	1	2	4	2	..	..	..	..	..	..	..	..	..	..	..	..	Total ..21			
SKIN-DISEASES (not named).	Cured	2	4	3	2	4	1	1	..	66.6	57.1	42.8	50	44.4	33.3	50	..	52.3	42.8	48.5	Males ..21 Females..14				
	Much better.	1	3	3	2	4	2	1	..	33.3	42.8	42.8	50	44.4	66.6	50	..	42.8	50	45.7					
	Better.....	..	..	1	..	1	..	..	..	..	..	14.3	..	11.1	..	..	..	4.7	7.1	5.7					
	No better...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
	Total	3	7	7	4	9	3	2	..	..	..	..	..	..	..	..	..	..	..	..	..	Total ..35			
LEAD - POISON- ING.....	Cured	..	2	2	..	..	1	..	..	..	13.3	9.1	..	..	33.6	..	..	10.8	33.3	12.5	Males ..37 Females.. 3				
	Much better.	..	11	17	..	..	2	..	..	..	73.3	77.2	..	..	66.6	..	..	75.6	66.6	75					
	Better.....	..	2	3	..	..	..	..	..	..	13.3	13.6	..	..	..	..	..	13.5	..	12.5					
	No better ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..					
	Total	..	15	22	..	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	Total ..40			

TABLE II.—*Condition of the Urine in Twelve Cases.*

Sex and Age.	Occupation.	Disease.	Duration.	Result.	On Admission.			After Admission.											
					Quantity.	Quality.	Sp. gr.	First Week.			Second Week.			Sixth Week.			Quantity.	Quality.	Sp. gr.
								Quantity.	Quality.	Sp. gr.	Quantity.	Quality.	Sp. gr.	Quantity.	Quality.	Sp. gr.			
M., 36	Carter	Rheumatism	10 mths.	Much better	2 pints	Acid	1.15	2½ pints	Acid.	1.20	3½ pts.	Acid	1.20	4 pints	Acid	1.20			
M., 21	Footman	Rheumatism	7 years	Cured	1½ pts.	"	1.28	3 "	"	1.21	4 "	"	1.10	4 "	"	1.12			
M., 58	Gardener	Rheumatism	3 years	Much better	2 pints	"	1.24	3 "	"	1.12	5 "	"	1.13	3 "	"	1.14			
M., 49	Mason	Gout	4 years	Much better	2 pints	"	1.12	2 "	"	1.10	3 "	"	1.14	2½ "	"	1.11			
M., 26	Quarryman	Rheumatism	4 months	Cured	1 quart	"	1.20	2 quarts	"	1.12	4½ "	"	1.18	4½ "	"	1.17			
F., 28	Lady's-maid	Coxalgia (Rheumatic)	6 months	Much better	1 quart	"	1.18	3½ pints	"	1.21	4 "	"	1.10	5 "	"	1.10			
M., 24	Engine-driver	Rheumatism	15 mths.	Better	1 1-8th pt.	"	1.20	2½ "	"	1.13	3 "	"	1.11	6 "	"	1.12			
F., 27	Housemaid	Rheumatism	6 months	Much better	1 quart	Neutral	1.21	3 "	Faintly acid	1.20	2 qts.	Faintly acid	1.20	2 qts.	"	1.18			
*M., 35	Clerk	Rheumatism (after injury)	3 years	Much better	3 pints	Acid	1.18	3 "	Acid	1.12	1 "	Acid	1.12	6 pints	"	1.12			
†F., 19	Servant	Rheumatism	2 years	Much better	1½ pints	"	1.12	3 "	"	1.13	4 pints	"	1.13	5 "	"	1.10			
M., 22	Printer	Rheumatism	10 mths.	Cured	2 pints	"	1.26	3 "	"	1.11	2 quart	"	1.15	2 qts.	"	1.12			
†F., 30	Governess	Rheumatism	12 mths.	Much better	1½ pints	Neutral	1.12	3 "	"	1.14	3 pints	"	1.12	4 pints	"	1.11			

* Complicated with nervous debility and anæmia.

† Complicated with amenorrhœa.

‡ Complicated with anæmia.

TABLE III.—*Bath Mineral Waters.*

CONSTITUENT PARTS IN 100,000.					Merck and Galloway.		Mackay Heriot, F.G.S. (Captain Royal Marine Light Infantry).			
					King's Bath.		King's Bath.		Het. Pump.	
Calcium	..	..	..	..	386.7	..	377	..	401	..
Magnesium	..	..	..	..	53.9	..	47.4	..	52.2	..
Potassium	..	..	..	..	29.8	..	39.5	..	31	..
Sodium	..	..	..	..	160	..	129	..	137	..
Lithium	..	..	..	..	..	..	Traces	..	Traces	..
Iron..	..	..	..	..	..	..	6.1	..	6.7	..
Sulphuric acid	..	..	..	..	7.4	..	869	..	884	..
Carbonic acid (combined)	..	..	..	..	1029.5	..	86	..	89	..
Chlorine	..	..	..	..	86.9	..	280	..	275	..
Silica	..	..	..	..	265.3	..	30	..	39	..
Strontium	..	..	..	..	42.6	..	Traces	..	Traces	..
Alkaline sulphides	..	..	..	..	..	..	Traces	..	Traces	..
Carbonic acid gas at normal temperature and pressure (cubic centimetres per litre)	..	..	..	..	..	..	Traces	..	Traces	..
Total solid contents in 100,000	..	..	..	..	2062.1	..	1864.0	..	1911.9	..
Specific gravity..	..	..	..	..	..	..	1.0015	..	1.002	..

Temperature.—King's Bath, 117 deg. Fahrenheit; Hot Bath, 120 deg. Fahrenheit; Cross Bath, 104 deg. Fahrenheit. The nitrogen daily evolved from the springs amounts to about 250 cubic feet.

Dr. Bence Jones as to the cause of this pain and swelling, which he attributes to increased oxidation, and which he looks upon as a natural therapeutic effort to eliminate the effects of suboxidation. Undoubtedly, most of the cases in which the symptoms are at first somewhat aggravated are in the end those in which the waters will be found most efficacious.

Mr. Coppinger, the resident medical officer to the Mineral Water Hospital, has kindly made some investigations as to the effect produced on the chemical reaction and quantity of the urine by the in-

ternal use of the waters. He has tabulated these conditions as found existing on the patient's admission into the hospital; also at intervals during their sojourn there. I need not explain the difficulties in the way of pursuing such investigations in the hospital; but I have every reason to trust to Mr. Coppinger's diligence and watchfulness in conducting these observations. I append twelve cases in the form in which he has reported them, in order that my readers may try to deduce some practical inferences as to the effects of the mineral waters as regards the renal secretion (Table II). For purposes of general in-

formation, I will also append the latest analysis of the Bath Mineral Waters by Captain Heriot, Royal Marines. (Table III.)

In concluding the foregoing remarks and observations, I may be pardoned if I repeat that which I have already wished to convey to my readers, namely, that it is with no intention of dictating to them, least of all with any assumption of superior knowledge. I have ventured to say that which many others would have said much better had they the same opportunity or desire to do so, but "Non cuius homini contingit adire Corinthum", which in the present instance, if freely translated, means, "It is not every professional brother who visits Bath"; though I trust that by the end of this year the number of non-visitors in the profession will be but very small indeed.

To those of my readers who are already well acquainted with the uses as well as the abuses of the Bath Mineral Waters, I will address the following quotation, with which I will now conclude.

"Si quid novisti rectius istis,
Candidus imperti; si non, his utere mecum."—*Horatii Epistol. v. Liber i.*

SURGICAL MEMORANDA.

CATGUT LIGATURE.

ON November 17th of last year, I tied the hind part of the right subclavian artery in the Manchester Royal Infirmary with a catgut ligature. The patient died of cardiac disease on the eighth day following; and, on examination, it was found that the ligature had, with the exception of a short interval of about one line in length, completely cut its way through all the coats of the vessel. There was no occlusion whatever of the artery, nor even any coagulum; so that doubtless the hæmorrhage would have been fierce and uncontrollable had the man survived longer. I make a note of this, because I think it goes far towards establishing the correctness of the opinion that catgut is an unfit agent for securing arteries in their continuity. It is true that catgut is efficient and safe in deligating the vessels severed in amputations; and I think, for the reason that, the limb being removed, less blood is sent down the divided arteries, and so but little stress comes upon the encircling ligature (it is otherwise when a ligature is applied for the cure of aneurism); and, as a consequence of this, it yields, and so, permitting the re-establishment of the stream, prevents the formation of a coagulum.

S. MESSENGER BRADLEY, Manchester.

CATGUT DRAINAGE.

I BEG to thank Mr. Messenger Bradley for his prompt reply to my request for his reasons why Chiene's method of catgut drainage is "most inefficient". He gives these reasons under three heads.

1. *Catgut drainage is inefficient, because it does not act by capillarity.* This is no argument for or against its efficiency or inefficiency. My explanation of the mode of action of a skein of gut may or may not be true. That question is altogether apart from the question at issue. I therefore do not enter upon it.

2. *Catgut is inefficient, because, as Mr. Bradley has seen it applied, it only drains the superficial parts of a wound.* In my original paper (*Edin. Med. Journal*, September 1876), it is distinctly stated that the drain is to be stitched to the bottom of the wound. A surface-drain in a wet meadow will only remove surface-water; a hank of gut placed superficially in a wound cannot be expected to drain away the discharge from the deeper parts of the wound.

3. *Catgut is inefficient, because it does not last long enough.* A skein of the finest gut of four threads is absorbed, as a rule, within a week; a skein of twelve threads, in from ten to twelve days. In this time, the wound, if it is to heal by first intention, will be beyond the necessity of drainage. It is stated in the original paper that I do not allude to the use of catgut in suppurating wounds. I feared that catgut would not remove pus. Further experience has shown this to be true. When suppuration occurs, a drainage-tube must be inserted. As long as suppuration is the exception, not the rule, we are justified in using catgut in those cases in which our aim is union by the first intention. This is one of the advantages claimed for the catgut over the drainage-tube.

I trust that I have answered Mr. Bradley's objections. Mr. Bradley should have read with care the original paper, and should have tried the method of application there recommended, before making such a sweeping accusation. Until he has tried it in the way recommended by me, he has no right to say, and he cannot expect me to accept his assertion, that "Chiene's method of catgut drainage is most inefficient". Perhaps I may be allowed to add that I have used catgut

as a drain in every available case in hospital and private practice since September 1876, and that I still feel justified in recommending it to the notice of the profession.

JOHN CHIENE, Edinburgh.

NEW METHOD OF CLEANING CATHETERS.

I HAVE always thought that the thorough cleaning of catheters by washing them out and blowing through them is impossible and distasteful. The oil-stain is persistent, and the cone at the tip of the instrument is a nidus for successive deposits of impurity; and I protest personally against soiling my lips with a machine that, a few minutes previously, was an urine-duct. To remedy these inconveniences, I have been accustomed to use catheters with through communication and a bristle brush with double handle. Catheters pervious from tip to handle are more easy to introduce, and give less pain on withdrawal than eye-sided instruments, because they are smoother, and the spasm of urethral muscles has no grip on the side excavation. If the catheter be not introduced too far, the bladder-wall cannot occlude the hole at the tip. The bristle brush is shown in the diagram; it can

easily thread the catheter, and may be passed to and fro as often as desired in a weak solution of soda and water.

Breech-loading barrels, from a pure point of view, are preferable to the old muzzle-loading; and, as a sportsman considers his barrels foul if only soaked in warm water and blown through, so also should a surgeon condemn his catheter as unclean if only treated in a similar way. The catheters and brush are manufactured by Messrs. Wright and Co., 108, New Bond Street, W.

RICHARD DAVY, M.B., F.R.C.S., Surgeon to the Westminster Hospital.

THERAPEUTIC MEMORANDA.

TURPENTINE IN ENTERIC FEVER.

I HAVE read with great interest the remarks in the BRITISH MEDICAL JOURNAL of December 15th, 1877, on the use of turpentine in enteric fever, by Mr. R. P. White; and I have employed it in the treatment of this disease with the most marked success. We are indebted to Surgeon-Major Moffitt, 15th Regiment, for having brought this mode of treatment under the notice of the profession in India; and I am informed by him that it was from his uncle, Dr. Moffitt of Sydney (who has been in the habit of using it for the last fifteen or twenty years), he first learnt its value in these cases. About two years ago, Surgeon-General Stewart called for reports on this mode of treatment, and I have no doubt they will be published in the next departmental blue-book. I was at that time quartered at a station (Ahmedabad) where, if a case of enteric fever did occur, it was almost always fatal; but after the adoption of the turpentine treatment I never lost a case. As to its *modus operandi* I can scarcely speak; but it appears to me, from what I have seen of it, as much a specific for enteric fever as is quinine for ague or ipecacuanha for dysentery. I may add that the mode of administration I have found most useful is, as recommended by Dr. Moffitt, half-drachm doses four times daily, made up with mucilage or yolk of egg.

E. J. MCGRATH, Surgeon-Major Royal Artillery.

RHAMNUS FRANGULA.

As the profession appears returning to the use of the "rhamnus frangula or black alder", the following account of it may interest the readers of the JOURNAL.

Dr. Quincy, in the twelfth edition of his work entitled *Pharmacopœia Officialis et Extemporanea, or a Complete English Dispensatory*, printed in the year 1742, under section Cathartics, remarks:—"Ainus nigra,