NORTH-WESTERN PROVINCES (FOR JUNE 1893).

City or Municipality.	Area in acres.	Population, 1891.	Number of persons to an acre.	Death-rate per 1,000 of population per month.	Annual death-rate per 1,000 of population.
Moradabad ..	1,660	72,068	43	3·41	40·92
Bareilly ..	2,785	107,785	38	2·30	27·60
Shahjehanpore ..	5,625	76,977	13	1·83	21·96
Meerut ..	401	73,637	183	2·42	29·04
Koel ..	400	61,485	183	2·24	26·88
Muttra ..	1,146	56,431	49	2·40	28·80
Furruckabad ..	2,551	73,009	28	2·51	30·12
Agra ..	14,452	146,208	10	1·87	22·44
Cawnpore ..	2,381	163,779	68	2.66	31·92
Allahabad ..	19,237	162,895	8	1·50	18·00
Goruckpore ..	2,990	64,398	21	1·97	23·24
Benares ..	3,141	213,168	67	1·84	22·08
Mirzapore ..	3,376	84,130	24	2·03	24·36
PUNJAB (FROM 1ST APRIL TO 29TH APRIL 1893).					
Delhi	14,437	189,648	13	2·19	26·32
Umritsur ..	807	135,401	167	2·38	28·62
Lahore ..	461	159,597	346	1·86	22·40
Peshawar ..	500	63,079	126	1·55	18·64

Correspondence.

IPECACUANHA SINE EMETINA.

To THE EDITOR, "INDIAN MEDICAL GAZETTE."

SIR,—In the June issue of *The Practitioner* there appeared a paper by Dr. Kanthack and Mr. Arnold Caddy entitled "*The Therapeutic value of Ipecacuanha deëmetinisata.*"

I feel obliged to notice the above-mentioned article because of certain references which are made in it to a paper published by me in the *Indian Medical Gazette* for September, 1891. Dr. Kanthack and Mr. Caddy have so misunderstood the drift and object of my paper that they have misrepresented some of my conclusions, and have thereby made me responsible for taking up a position which never even occurred to me, and is certainly not suggested by the text of the paper in question, "*What is the rational treatment of acute dysentery?*" The first point to which I wish to draw attention is contained in a statement made by Dr. Kanthack and Mr. Caddy on page 412 of *The Practitioner*:—

"Surgeon-Captain Walsh, on the other hand, obtained unsatisfactory results with deëmetinised ipecacuanha prepared by Surgeon-Major Warden, Chemical Examiner to the Government of Bengal."

These, gentlemen, in the course of their paper state that Warden's process is a bad one, and that the drug as prepared by him may be useless! They do not think highly of deëmetinised ipecacuanha as prepared by Ferris & Co., of Bristol; they have some praise for a preparation made by Symes & Co., of Simla, but they particularly laud the *ipecacuanha deëmetinisata* prepared by Dr. Merck. Dr. Merck's process of preparing the deëmetinised ipecacuanha is not given, but this will not surprise members of the medical profession who know anything about him, and who remember the *fiasco* he made over the analysis of *Cannabis sativa* some years ago.

Now the ipecacuanha used in the Presidency General Hospital by my colleague, Surgeon-Major James Clarke and myself was supplied by Surgeon-Major Harris and was prepared partly by Symes & Co., of Simla, and partly by Ferris & Co., of Bristol. The results obtained were not satisfactory, and the drug was discarded. Nothing in my paper could lead a careful reader to suppose that Dr. Warden supplied the ipecacuanha preparation used in the European General Hospital, Calcutta.

In the same paragraph (*Practitioner*, p. 412) there occur the following words:—

"He inaugurated a new treatment of dysentery which he does not hesitate to call the 'rational' treatment of dysentery, and which consists in giving the emetine separated from ipecacuanha by Warden's method in combination with biniodide of mercury."

So far from making the very slightest effort to inaugurate a new treatment I said in my paper:—

"From Tables I and II it must be inferred that, although emetine mercuric iodide seems a useful drug, it is not found to be much better than preparations of *Wrightea antidysenterica*, and I do not claim any pre-eminence for it, nor do I recommend it above other drugs. It is not even proved to be better than other drugs which are not supposed to have any *specific* action on dysenteric conditions."

The deëmetinised ipecacuanha used by Dr. Crombie in 1892 was sent out by Dr. Kanthack and was prepared by Dr. Merck. A portion of this powder was offered to me by Dr. Crombie, but as I did not feel any particular interest in the question, I refrained from accepting it. Dr. Crombie's cases were published in the *Indian Medical Gazette* for April, 1893, and, admitting for the moment that "it is moreover questionable whether Dr Crombie's cases were watched with sufficient care" (*Practitioner*, June, 1893, p. 412), I do not quite see how Dr. Kanthack and Mr. Caddy can ignore the very distinct statement made by Dr. Crombie in a letter (quoted *Practitioner*, p. 413), and in his article in the *Indian Medical Gazette* that "the ipecacuanha sine emetinâ! caused vomiting in a considerable proportion of instances.' The next points which call for remark are contained in para. (D) on page 416 of *The Practitioner*.

Dr. Kanthack and Mr. Caddy say that the opinion that the value of ipecacuanha in acute dysentery depends on the emetine contained therein "is certainly erroneous and untenable." This is a mere "*ipse dixit*" and unscientific since they have made no comparative experiments. I think it will be sufficient, for the present, to refer them to the standard authorities on *Therapeutics*. They go on to assert that when combined with $Hg\ I_2$ the emetine "cannot be absorbed by the mucous membrane of the intestinal tract and naturally does not cause vomiting." Dr. Kanthack and Mr. Caddy probably hold some theory which differs from the generally accepted belief that emetine causes vomiting by direct irritation of the peripheral branches of the pneumogastric nerve in the stomach. No absorption is necessary. If the drug can be conveyed through the stomach in an inactive state as when combined with $Hg\ I_2$ there is every reason to believe that vomiting will be avoided. It is further generally allowed that with Meyer's re-agent the alkaloid is separated from the $Hg\ I_2$ in alkaline solutions; any one may prove this by a simple experiment.

The successes which Dr. Kanthack and Mr. Caddy report after using deëmetinised ipecacuanha prepared by Dr. Merck may be explained in two ways. From Dr. Crombie's experience it seems highly probable that Merck is not able to remove the whole of the emetine and enough remains to act as a cholagogue; or, admitting the entire removal of the emetine, when the therapeutic effect of the remaining ipecacuanha is about equal to that of sawdust, the patients have been cured, as is frequently the case, by purgatives, rest, and a fluid diet.

J. H. TULL-WALSH, SURGN.-CAPT., I.M.S.

CALCUTTA,
20th September 1893.

THE PREVALENCE OF DOCHMIUS DUODENALIS

To THE EDITOR, "INDIAN MEDICAL GAZETTE.'

SIR,—Surgeon-Major Dobson has done good service to helminthology by demonstrating the wide prevalence of *Dochmius Duodenalis* in Assam, and also in the districts from which the cooly emigrant is mainly derived.

That such should be the case, however, follows necessarily from the method by which the worms gain access to new hosts.

It was to the solution of the problem of the exact nature of this method to which I particularly addressed myself while in Assam, and, some time ago, I had the honor to communicate a brief abstract of the results of the investigation to the pages of this Journal.

No one reading that account can fail to see that, given the presence of the parasite at all in a village, it is far harder to understand how any one, living as natives do, can escape entirely from harbouring it, than that they should come to do so.

The number of parasites harboured will of course vary much in the same way that injuries vary in battle, where one man gets riddled with bullets while another escapes unhurt or under any other circumstances where a body of persons are exposed to a common danger; but it must necessarily be rare for any native in an infected village to escape completely.

That numbers of healthy people harbour *dochmii* I have never entertained a doubt, but no one who knows anything of helminthology would fall into the error of imagining that a few of the worms can do any appreciable harm.

The men whose cases Surgeon-Major Dobson tabulates were mainly cooly immigrants who had been selected in the recruiting districts *because they were healthy.*

The thorough way in which Surgeon-Major Dobson conducts his inspections at Dhubri is too well known for recruiting agents to bring sickly men before him, with the certainty of being put to the expense of sending them back. Given then the certainty that a few *dochmii* will be found in most natives who hail from parts where it is common; Surgeon-Major Dobson proves nothing but what might be expected when he finds no serious results in a body of men already selected for their healthiness.

That any one can harbour a *large number for any length of time* without sickness and death following is, however, quite a different matter.

Neither Surgeon-Major Dobson nor anyone else, I believe, doubts that the *dochmii* obtain their nourishment by sucking blood from wounds it inflicts on the mucosa of its hosts, and, while it is easy to see that the few drops of blood lost by the bites of a few worms, can do no practical harm, it is, I submit, contrary to reason, and common sense to maintain that the large losses of blood and the extensive injuries caused by a large number will act differently from chronic hæmorrhages from other causes; about the fatality of which no one entertains a doubt.

In his wanderings in Assam Surgeon-Major Dobson must have seen natives' legs badly inflamed from leech bites; does he consider that the skin so affected can be said to be capable of performing all its functions? I trow not.

For all practical purposes, *dochmii* may be considered as small leeches. Why, then, does he believe that a delicate mucous membrane should not resent treatment too severe for the toleration of even the tough hide of an Assamese cooly's nether extremity? And how does he imagine that digestion can be adequately carried on with that portion of the intestine most essential to the peptonizing process in a state of chronic irritation?

Other causes of intestinal irritation are not found to be harmless; why should so obvious a cause as this be so?

What Surgeon-Major Dobson overlooks is that these parasites, unlike the schizomycete organisms, are quite incapable of multiplying within their host, and that the amount of harm they effect depends on two factors: the number of parasites present, and the length of time they are harboured. A large number of parasites harboured for a short time, or a few for a long time will be incapable of doing sufficient harm to tell upon the patient's health.

Judging from the tails of clot hanging from the ani of worms found in *post-mortem* examinations performed shortly after death, I should say that each worm extracted more than its own weight of blood per diem; but the worms are individually small, and it would take, say, a couple of hundred to account for the loss of much more than an ounce of blood a day. Given, however, such a loss as that, continued every day for months, and it is hard to believe that the victim will be in robust health at the end of the peri d.

Another common fallacy into which, with many other observers, Surgeon-Major Dobson falls, is that the number of worms found *post-mortem* or by expulsion by thymol, at any given stage of a case, is any index of the number that may have been present at some previous stage of it. On the contrary, I believe that the worms constitute what may be called a floating population, and that they are especially liable to become scanty in number towards the end of a case because they drop off, or die, from inanition as the patient becomes too bloodless to supply their greedy appetites.

Hence, to find a serious case of anæmia that harbours but few does not at all prove that an adequate number to account for the symptoms were not present at some previous stage of the disease; and the only test of the number that have been present is, clinically, the extent of the anæmia that has been produced and *post-mortem*, the amount of lesion that can be recognised by a microscopical examination of the mucous membranes.

A perusal of the last Annual Sanitary Report of Assam shows that those medical men who have the best opportunities of judging, *viz.*, the medical officers of tea-gardens whose entire life is given to the care and management of the cooly, are practically unanimous in their belief that the *dochmius duodenalis* is the efficient cause of the fatal cooly anæmia. A few appear to believe that the additional element of malaria is required to render the worm a cause of death, but that this is a fallacy merely due to the local circumstances under which they have studied the disease, is shown by the fact, that the only places in which the disease has caused any serious fatality in Europe, happen to be in Alpine regions where no suspicion of malarial complication can be entertained. There is therefore no necessary connection whatever between the two diseases. Let it not for a moment be understood that I am not perfectly agreed with them as to the extreme frequency and importance of malarial complication.

In Assam, as elsewhere in India, it complicates every disease Malarial complication undoubtedly swells the mortality, *e.g.*, after all operations, and after child birth; but no one filling in a death certificate for such a case would return the complication as the primary disease, and the operator who claimed a clean death-roll as the result of his operations by imputing all deaths to malaria would probably lay himself open to the charge of insincerity.

To ordinary comprehensions it must be perfectly certain that, where these parasites are so common that it is the exception to find even healthy people quite free from them, a large number of cases will necessarily come to harbour a number sufficient to cause disease and death; but naturally these serious cases are not to be found among persons who have just been hired on account of their obvious fitness to work as field labourers—any more than one would find persons just passed for unweighted life insurance a profitable field for the study of morbid heart wounds.

I maintain that, wherever the parasite is prevalent, there, then, will be serious mortality, and that it is extremely prevalent alike in the areas of kala azar and beri beri. Surgeon-Major Dobson himself has given us a carefully worked out proof.

If *anchylostomiasis* be not the cause of the increased mortality which goes by the above names in Assam, what has he to propose in its place? nothing, so far as I can see, but our old friend malaria.

That Assam is very "malarious" no one doubts, but it always has been so, and it is therefore useless to look to this as a cause for *increased* mortality. Besides one fact alone absolutely disposes of the malarial theory, and that is that Europeans and persons of European habits of life in Assam are absolutely immune alike to kala azar and beri-beri, and we all know, to our cost, that we are not immune to malaria. Therefore, as a cause for kala azar and beri-beri, we must seek some disease whose transmission is prevented by the adoption of European habits of life. Now no microbic disease that we know of answers to this peculiarity, whereas *dochmii* can only be acquired by people who serve their food in uncleanly fashion.

Hence the hypothetical microbe that is to be discovered b Surgeon-Major Dobson's hypothetical "German professor" had need to be one of the most exceptional peculiarities to meet the facts of the case. Besides, supposing he comes, and catches his microbe, I fail to see how that can render anchylostomiasis one bit less common or less fatal.

I have only one more point to notice and that is, that it is unfortunate that Surgeon-Major Dobson is unable to identify the flukes he obtained in such large numbers.

Doubtless, for him, they are all harmless or perhaps beneficial worms; but in point of fact, like mematodes, the

different species of flukes vary greatly in their effects on their hosts some being almost harmless, while others are capable of causing severe symptoms.

The "small" ones are probably *amphistomum hominis* Lewis, but as to the broad flat ones, it is difficult to hazard an opinion as there are scanty notices of several such species having been found in the human subject.

Might I suggest that he should send some of them to some known authority on the subject as *e.g.*, Professor Leuckart or Professor Sonsino, of Pisa, who would thoroughly appreciate the importance of so rare a find.

G. M. GILES, M.B., F.R.C.S., *Surgeon-Major, Dy. Sanitary Commr., 3rd Circle, N.-W. P. & Oudh.*

RAMBI GARHWAL, 30*th August* 1893.

THE PROPER ADOPTION AND USE OF COMPOUND TITLES.

To the Editor, "Indian Medical Gazette."

SIR,—I feel impelled to once again address, through the valuable medium of your columns, the officers of H. M.'s Indian Medical Service with reference to the proper adoption and use of the compound titles, denoting substantive rank, lately conferred upon them by Royal Warrant and the Government of India.

As noted in my previous letter, it is chiefly the more senior officers who are at fault, and it is therefore to them that I specially address myself, though junior officers are by no means guiltless. Let me put before them, as briefly and plainly as possible, a few facts of which, however, they should already be fully cognisant:—

(1) These compound titles are practically the result of the recommendations of the Camperdown Committee, a body of men more or less hostile to the medical services, and who would not, therefore, have recommended the change could they have avoided doing so.

(2) The Royal Warrant embodying these recommendations was practically an *order* to use the titles therein specified, and should be so regarded.

(3) I have not met nor heard of a single I. M. S. medical officer who has been on active service that does not appreciate and understand the value of the substantive rank thus conferred, though such officers may exist. *Every* officer of the A. M. S. whom I have met, from the most senior to the most junior, knows the importance of the clear recognition of his military rank, and the power and respect resulting therefrom, whether the latter is *openly* acknowledged or not.

(4) I constantly hear officers of the I. M. S., or their wives, making fun of the titles and of those who use them in front of civilians. I have never known a senior combatant officer do so, and I respect the latter accordingly.

(5) It is idiotic for a man who has had experience of military routine and discipline to repeat the hackneyed statement that "he is *proud* of the title of doctor and wants no other." No one denies that the prefix of "doctor" is an honourable one, &c., but, unfortunately, that is not the point at issue. It is this:—The medical officers of the army are part of the great military machine, and a most important part too. Now the experience of years has shown it to be *absolutely essential* that in a modern army every human unit should have a clearly defined rank according to service, position, &c., and that, *unless* he has this, his department will with certainty go to the wall. Well-read men should know enough of the history of the Royal Engineers, Commissariat Department, &c, to be able to realise this by themselves.

What I find is that there are several reasons, trivial enough in themselves mostly, for the neglect of this matter by officers of the I. M. S.

Foremost amongst these stands a mixture of ignorance and sensitiveness to ridicule. Instead of standing loyally by their comrades of the A. M. S., they just let things slide and prefer to remain Doctor. In other cases the domestic element is to the fore, and it is the wifely chaff which is too much for them. One lady, who is much addicted to dragging in this question in a mixed assemblage, gave as her reasons for objecting to her husband's official rank: "Oh! You know I don't care a bit; —— will never be sent on active service," and so the husband is content, apparently, to accept this extremely selfish and limited view of the question, and to masquerade at state functions as "mutton dressed as lamb," or rather "lamb dressed as mutton." Another one fondly puts her arm around *his* neck and murmurs that she "likes her darling best as doctor," and so *he* gives in also. A third class, who have been in civil billets almost since arrival in India, are naturally used to being doctored, and in many cases they too play the part of culpable ignorance and lazy selfishness and remain doctor. I enclose for your perusal the card of a senior I. M. S. officer with Mr. written upon it by his wife. We have, in the town from which I write, some lovely examples of the confusion which arises as the result of such ignorance and selfishness. On one side of a gate is Surgeon Lieutenant-Colonel ———, and opposite this is Dr. ———. In another road is Surgeon-Captain ——— and opposite this Dr. ———. Elsewhere we have a Surgeon-Lieutenant-Colonel posing as Mr. ———, and so on. The special cue of some, adopted from sarcastic military friends, is to pretend that "those absurd titles are so difficult to remember," and then comes the fossilised joke about "Brigade-Surgeon Field Marshal Commanding," etc., etc., *ad nauseam*. No one likes the useless string of words comprised under Brigade-Surgeon-Lieutenant-Colonel, but the other titles are perfectly simple and quite as easily remembered as the ordinary military ones. One wonders where the man was bred who calls upon you with Mr. John Snooks, Surgeon-Captain, I. M. S., on his card, or Dr. Jones, Surgeon-Major. He is certainly a square, very square, peg in a round hole. If the difficulty is a new card-plate, I will willingly head a subscription to supply them with new ones. Joking apart, however, let these lazy, ignorant, or selfish men remember that they *are* military medical officers, whatever they choose to think or say, that the verdict of an overwhelming majority of the medical officers and the British and Indian armies testified to the absolute necessity of such titles; and that they are acting in direct contravention of an order of the higher authorities in not using them; and finally, that those of us who do use them, do so not because we are "deuced military you know," but because we know and recognise that it is our duty to the sovereign whose commission we bear, to our fellow-officers in the A. M. S. in their trying an ambiguous position, and to ourselves as part of the army itself. There is no one with a greater objection to the man who seeks to hide his medical duties and privileges under an assumed guise of ultra-militarism than myself—extremes are always bad—but I shall hail the day when the Surgeon-Generals with the Government of India, Madras and Bombay shall issue an order *compelling* medical officers to use their proper titles, at least officially, with a joy tempered with regret that such an order should be necessary.

I. M. S.

HEPATIC ABSCESS.

To the Editor, "Indian Medical Gazette."

SIR.—In your issue of June last appears an article by G. Harrison Younge, F.R.C.S.I., Surgeon-Captain, Medical Staff, on Hepatic Abscess: its Causation.

As I have not seen Surgeon-Captain Hehir's article of which the above is to some extent a criticism, I am not to be considered as defending him. I have merely to deal with Surgeon-Captain Younge's article.

Surgeon-Captain Younge starts with the assumption that all dysenteric hepatic abscesses must be due to micro-organisms absorbed from the intestine, and that the *post-mortem* condition of the radicles of the portal vein leading away from the ulcerated parts of the gut must be similar to that seen in the radicles of the veins leading away from a wound in other parts which wound has been a focus of pyæmia. In short, that it must be pyæmic in the most limited sense of the term if it be a true dysenteric abscess.

The condition of veins mentioned by Surgeon-Captain Younge is not invariable in what we call pyæmia. We occasionally see pyæmia in which there is no trace or history of a wound or sore, and in which the abscesses may be large and not many in number, and which, for want of a more definite cause, are said to be due to absorption of foul gases. We may thus assume, that outside hepatic questions, the veinous condition described by Surgeon-Captain Younge, is not invariable in pyæmia, and why may not hepatic