group and the massive Redwall become gradually thicker to the northward and westward, and the inner canyon narrows as these strata become more and more effective in defending the retreat of the wall.

In the Kanab division, the Supai formation of the Aubrey group consists of weak red shales in the upper portion and resistant sandstones below. The shales waste back from the summit of the sandstones, leaving the Esplanade platform. In the western part of the quadrangle, where the Esplanade is fully developed, the thickness of the Supai shales is 550 feet; while that of the overlying massive white Coconino sandstone, which defends the retreat of the outer wall, is only 250 feet. Eastward from Havasupai Point, in the Kaibab division, the thickness of the Supai shale has decreased to 300 feet (becoming still thinner in the Bright Angel quadrangle to the eastward); while that of the Coconino sandstone has increased to 400 feet; the Esplanade fades to a narrow ledge in this part of the canyon.

L. F. Noble
Valyermo, California,
July 27, 1911

Draughts and Colds

To the Editor of Science: In reading the interesting and instructive communication by Mr. M. Mott-Smith in the August 4 number of Science, I was impressed by the closing paragraph, which follows:

> Though the above explanations are only a rehash of well-known principles, I hope they may be of some use. In return I wish some one would explain to me just what is the danger of the open window. Why is a little sneaking draught in the house a source of colds and grippe, while a high wind out of doors a pleasure and a benefit? This is a problem that has long puzzled me, but perhaps it is a foolish question.

This problem has doubtless puzzled a great many besides Mr. Mott-Smith, and is perhaps "a foolish question"; but why it should be a *foolish question* seems also a puzzle to a layman. The problem appears to involve the question, what is the pathology of a "bad cold"? The writer has propounded that question to several intelligent physicians, and its "foolishness" is attested by failure to elicit any attempt at a lucid reply.

The writer has been compelled to construct for himself what engineers would call a "working hypothesis" to cover this problem. and has even ventured to apply a quasi scientific name to fit the case, which is offered as a reply to Mr. Mott-Smith for what it may be worth, or otherwise, with all due diffidence and a proper sense of his temerity in trenching upon hallowed ground.

The answer thus boldly formulated as to the proximate cause of a "bad cold" is, *a disturbance of the thermo-neural equilibrium* of the surface of the body.

It is a matter of common experience that if a portion of the body, the head and neck, for instance, is exposed to a strong breeze while the remainder of the body is of normal or supernormal temperature, bad cold, grippe, etc., are pretty sure to result, while the "high wind out of doors," which envelops the whole body, has no such effect. One sitting in a country office on a very cold day, his feet thrust under a desk and his back to a glowing grate, shall after a while fall to sneezing, and if he is wise he will get up and stir around in order to restore this disturbed equilibrium in the temperature of the cutaneous nerves.

In this connection it may be said that the writer has found what is to him a completely satisfactory solution of the weighty question, how to deal with the long and oppressive summer heat in the southern states, to wit, the electric fan.

Nearly all persons are afraid to allow a fan to blow upon them while asleep; and indeed if the body is partially exposed to the action of the fan it is a dangerous practise. On the other hand it is the writer's constant practise to have a 16-inch fan blowing upon him all night in hot weather. When the temperature is very high the fan is run at top speed, and is graduated down for lower temperatures.

The point to be made is, that the fan is so located that it is in line with the sleeper's body, taking him from his feet to his head, and thus enveloping his entire body in the

volume of moving air. By this method of application of the fan there is no disturbance of the "thermo-neural" equilibrium of the body, and the writer has thus enjoyed the luxury of a cool bed without stint, in the hottest weather, without any evil effects.

It is the hope that others may profit by the above suggestion, that shall serve as an apology for this communication.

T. G. DABNEY

CLARKSDALE, MISS.,
August 13, 1911

BLANDING'S TURTLE

TO THE EDITOR OF SCIENCE: Mr. Howe's note in SCIENCE of September 1, reporting the capture of Blanding's turtle in Massachusetts, reminds me that I should make a note of the introduction of this turtle in Orange County, New York.

In 1909 I placed three pairs of Blanding's turtle (*Emys blandingi*) and three pairs of the map turtle (*Malacoclemmys geographica*) in Little Long Pond, near Southfields, Orange County. Some naturalist may discover them by and by, and it is desirable that a record be made of their introduction. Both species were collected in Erie County, Ohio.

C. H. TOWNSEND

NEW YORK AQUARIUM

QUOTATIONS

MEDICAL PRACTISE IN GREAT BRITAIN

As every one knows, the lines of work pursued by medical men vary greatly in different cases. Of all medical students a large proportion probably hope to develop into consultants or specialists, but sooner or later they learn that it is only to the few that a career of this kind is practically open. Even after a brilliant studentship success involves years of weary waiting, during which not even a bare living is made from practise; and, in fact, only those who have private means can afford, as a rule, to wait. Moreover, in every case the result is extremely uncertain, and one late outcome of legislation now in progress may be restriction of the field open to consultants and specialists of independent mind.

Despite, therefore, the apparent wealth of choice, the average newly qualified man has to elect between private general or family practise and an official career. Most men necessarily choose the former, if only for the reason that the number of posts in the public services is very limited. It is the more unfortunate, therefore, that the prospects of private practise are inferior to what they used to be. Complaints of lessened incomes and increased expenses began, indeed to come in a few years ago in such numbers that the subject was specially investigated by this *Journal,* and the results recorded in two articles on "The Financial Prospects of Medicine," which appeared in the *British Medical Journal* for June 12 and July 17, 1909. The net outcome of those articles was to prove that not only was the number of possible patients less, but each one of those that remained needed less medical attendance than formerly, especially for the zymotic diseases, which used to furnish so much work. In this connection must be mentioned the decline in the birth-rate, which not only affects the medical men of this generation, but must seriously influence the prospects of those who may succeed them. The counter-prescribing by chemists, the enormous sale of quack remedies, the growth of badly-paid club practise and of hospital abuse, have all taken away from medical men former paying patients. At the same time the State has from time to time thrown sundry unpaid duties on the shoulders of medical men.

The state has no conscience, but individual members of the public often seem, in their dealings with medical men, to have very little. The newly-qualified practitioner often thinks he is making a practise quickly, judging by the number of patients that come to his surgery, but too often he is disillusioned when he sends out his bills. If he press for payment before he is well established, the growth in his practise soon ceases, and, what is still more irritating, the very patients who had seemed to regard him as an angel of mercy not infrequently spread charges of incompetence or