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THE INCREASE.

( Z. )

1. We burn dim candles in the stifling fog
   Of godless pride and stolid self-content:
       Then lo! we see the mists
       Lifted,—and light prevails!

2. We sow the living seed in stony ground,—
   Behold! it grows to wisdom and the height
       Of love to God and man,—
       The flower and fruit of life.

3. We work with our poor skill on earth-blind eyes
   An hour,—the light of God-giv'n faith streams in,
       And lo! the man born blind
       Has seen the Invisible!

4. For golden human years lent (where the cost
   Of rice measures men's lives, and time has yet
       No hours) God's bank of life
       Still pays a hundred fold.
5. Nor is there sacrifice at such a rate!
   To spend one's meagre love through paltry days,
    And find the years scarce hold
    The wealth of love's increase:

6. To give a cup of water to "the least",
   And lift the eyes and see Him take and drink;
    Then, kneeling low, to feel
    His hand upon the head!

7. To keep the midnight watches through, in prayer
   With dying men, while steal in service soft
    The nurse's feet along
    The ward: and at the call

8. Of Dawn, to see Him smile through "dying eyes"
   The farewell love which, to the end of time,
    Shall light a weary world
    Through Death's cold door to-day.

9. Not only in "breaking bread" is Jesus known.
   We find Him in the clinic, racked with pain,—
    "An hungered, or athirst"
    "In prison" or in death.

10. Jesus! Well spent were life,—to have Thee take
    (Through one, the very least of Thy beloved,)
    The cup and drink, then hear
    Thee say the great "Well done!"
ON THE NATURAL POWERS OF RESISTANCE OF THE HUMAN BODY TO INFECTIVE ORGANISMS.*

By Ernest C. Peake, M.B., Ch. B. (Ed.).

In the preparation of this paper I must acknowledge my indebtedness to the recent article on "Immunity," by Prof. Hans Buchner.

My subject—"The Natural Powers of Resistance of the Human Body to Infective Organisms"—is one, I think, which surely must, sooner or later, present itself very forcibly to the mind of every physician who comes to China. What a grand time the microbes have in this benighted land! They hold "high-carnival" in every city, town, and village of this, the Celestial Kingdom! When we think of the native ideas of sanitation and of the utter disregard to all precautions of any kind, not only in the matter of sewage and drainage, but also in all cases of infectious diseases, of the horrid cesspools and smells we are only too familiar with; of the overcrowding and lack of personal cleanliness and aversion to light and air that we see constantly in the homes of the people; and of many other horrors which could never be mentioned in detail,—when, I say, we think of these things, our respect is moved indeed for the powers with which men have been endowed by nature, enabling them not only to keep alive, but even to keep healthy, under such adverse conditions. The invisible enemy is ever about us, ever on the attack, ever watchful of his opportunity and quick to avail himself of any weak spot in the lines of our defences; while on the other hand, the forces at our disposal are as vigilant to rebel the intruder. Never flinching from their task, our defensive forces close in a death-struggle with the foe, nor does the conflict cease till they have driven the enemy from the field; or until they themselves, overwhelmed by superior numbers and unable longer to maintain the unequal strife, are forced to succumb. It is to these, as I have called them, "Natural Powers of Resistance of the Human Body to Infective Organisms" that I wish to call your attention this afternoon.

Our powers of resistance against the various infective bacteria vary according to the nature of the infective agent. Against some forms of infection the resistance is absolute; against others it is only relative, greater or less as the case may be. And the same holds good throughout the whole animal kingdom. Each infective agent endangers the various species, varieties, and races of animals to a different degree. The human subject appears insusceptible to cattle plague, fowl cholera, swine erysipelas, etc., whilst all animals are resistant to scarlatina, measles, influenza, and so on. Even closely allied

* Read before a meeting of the Central China Branch of the China Medical Missionary Association.
varieties may manifest great differences in susceptibility; for example, the field-mouse is very susceptible to glanders and tuberculosis, whilst the common house mouse is resistant. Even racial differences may play an important part. Algerian sheep, for example, are much more resistant to anthrax than are the races of European sheep. In like manner differences are also to be found among the races of men. Negros are noted for their remarkable powers of resistance to yellow-fever, and in a lesser degree to malaria, yet they quickly sicken of and succumb to tuberculosis and small-pox.

If we take identical species and races, then age, the state of nutrition, and other circumstances are important factors. Young individuals are in general less resistant. Young pigeons can be infected with anthrax, whilst the older birds can only be infected after weakening them by prolonged fasting. The same holds true for anthrax in dogs; their power of resistance being reduced when water is withheld from them. By feeding exclusively on a bread diet, rats have been rendered more susceptible to anthrax than when kept on a meat diet; and similar results have been obtained by fatigue induced by making rats run in a revolving wheel.

Pasteur's experiments on fowls and pigeons are famous. The bird's normal temperature (42° C.) was lowered by immersion in cold water, and the power of resistance against anthrax was thus abolished. In the human subject, besides such factors as fatigue, cold, state of nutrition, etc., conditions of physical depression exert an important influence in lowering the power of resistance. Again the power of resistance which is commonly present may be suspended—as, for example, by injuries to certain organs and the like.

Thus we see that men and the lower animals alike have been endowed by nature with wonderful "powers of resistance" to the assaults of infective bacteria, though the intensity of that resistance varies in the different orders and species according to the nature of the attacking agent; and according to the state, depressed or otherwise, of the resisting organism.

Let us now go on to consider what are the causes of this natural immunity. What are our "natural powers of resistance" due to? How is it, for example, that the living organism is enabled to withstand the putrefactive bacteria, whether they be those of the intestinal tract or of the external surface of the body, which manifest their destructive power immediately after the death of the whole body, or of individual parts?

We must, in the first place, mention the external protective appliances which retard the penetration of infective agents into the body. Provided there be no breach of continuity, the skin is impervious to micro-organisms, under ordinary conditions. This protection is, however, insufficient, on inunction of the infective agent with mechanical pressure. But should micro-organisms, taking advantage of some wound or scratch, gain an
entrance through the skin, we have a second line of defence in the lymphatic glands, which take up and mechanically retain the infective agents, thus affording the organism time to bring into play its further protective powers.

Intact mucous membranes are also, for the most part, impervious. It has been shown that large quantities of virulent anthrax spores are required to infect guinea-pigs and mice by the intestinal canal; whereas very small quantities suffice to infect either, subcutaneously.

Again we must not forget other truly protective appliances of the body, such as the acid reaction of the normal stomach contents, the bactericidal properties of the saliva, of the vaginal and urinary secretions, and so on.

But it is evident that the essential cause of natural resistance to bacteria lies, not in these external protective appliances, but in the internal and somewhat complex conditions of the bodily organism, of which we have, at present, only an incomplete knowledge. That there is suitable pabulum in the tissues for the growth of bacteria, we can see for ourselves, as, e.g., in wounds, where the infective agent flourishes for a time, though afterwards multiplication ceases and recovery takes place.

Hence the problem presents itself, "What are the factors which effect this change?" By what means is the multiplication of bacteria inhibited, while there is manifestly suitable pabulum for them in the tissues? The change can only be induced by the direct action on the bacterium of the prophylactic appliances of the body, two of which are known, viz., (1) phagocytes and (2) alexins.

(1). Phagocytosis.

We owe to Metschnikoff the discovery of this very wonderful process. According to him the phagocytes are in part fixed and in part wandering cells which, by throwing out protoplasmic processes, are capable of enveloping, digesting, and thus removing infective agents which have penetrated into the body. The chief wandering phagocytes are the leucocytes, whereas many endothelial cells, the cells of the splenic pulp and of bone-marrow, sometimes also connective tissue cells, and even nerve and muscle cells act as fixed phagocytes. Ladies and gentlemen present will have observed, perhaps in the case of the malarial germs, the remarkably intelligent, systematic and persistent manner in which the leucocytes of the blood will attack foreign particles. I well remember the graphic way in which my old pathology lecturer, Professor Greenfield, described to us a pitched battle that he, in company with Dr. Manson, had watched through the microscope; how the leucocytes attacked again and again, and how, at one time, he thought them worsted in the fight, soon perceiving, however, that they had but retired to re-arrange their nuclei, and returning again to the attack completely swamped the enemy from the field.
Metschnikoff first observed this process in water-fleas affected by the fungus disease. He noticed that the fungus spores were devoured by the leucocytes of the flea, and a cure thereby effected. He afterwards detected a similar process in frogs affected with anthrax. Later on Metschnikoff proved that phagocytosis may be perceived in the course of all infective processes, and more especially if the animal be resistant and the process end in recovery. In natural resistance to bacteria, phagocytosis is, according to the same observer, developed to an exceptional degree, and is of such constant and regular occurrence that we may often foretell from the degree of phagocytosis whether or no the animal experimented on will gain the victory over the micro-organisms.

(2). Alexins.

Although the observations of Metschnikoff are undoubtedly correct, we have to remember, however, that the fluids of the animal body contain not only phagocytes, but also bactericidal substances in a soluble form, which are termed alexins, also concerned with the destruction of bacteria.

Buchner found that completely cell-free blood plasma or serum has a bactericidal action, and he also proved that the protective substances contained in the serum (alexins) are of proteid nature and very unstable. The bactericidal action of the alexins seems to depend upon the presence of mineral salts in the serum. Take away the mineral salts from the serum by dialysis, and you suspend the bactericidal action of the alexins, which is restored, however, by re-addition of the salts. The action of the salts is an indirect one; it is only when they have entered into loose combination with the proteid alexins that the functional power of the latter can be displayed, just as the functions of the cells and organs of the general body are dependent on their containing a normal amount of mineral salts.

Although it has been hitherto impossible to truly isolate the alexins because of their instability, yet they can be precipitated along with the other proteid substances of the serum, can be dried and again dissolved without losing their activity.

The alexins of different animal species have different degrees of activity; those of the human serum are very actively bactericidal.

The degree of bactericidal activity, however, is largely dependent on the nature of the bacterium employed and on the relative proportion of serum to the number of bacteria contained therein. A given quantity of serum can only destroy a certain number of bacteria, for the alexins themselves are destroyed or used up by contact with bacteria. Hence the increased danger to which the body is exposed when the infective agents are numerous. The action of alexins on bacteria appears to be a specific one upon the bacterial cell plasma.
Natural Powers of Resistance to Infective Organisms.

We have, therefore, an explanation of our natural powers of resistance to bacteria in the action of the alexins of the blood serum; and, in contradiction to this, we have the explanation of natural resistance brought about by the phagocytic action of the leucocytes. It would appear that both theories are correct, and that the real explanation of the problem lies, as it were, midway between the two, for, according to all recent investigation, the alexins are mainly derived from the leucocytes.

The leucocytes, therefore, as is claimed in the cellular theory, must be regarded as the chief cause of natural resistance to bacteria; not merely because they are phagocytes devouring and digesting bacteria, but also because they produce alexins. The precise relationship, however, between leucocytes and alexins is obscure.

Artificially produced exudations from dogs and rabbits, which are rich in leucocytes, are more markedly bactericidal than the blood and serum of the same animal.

The increase of bactericidal power does not depend on phagocytosis, for it is maintained after freezing and then thawing the exudation, a procedure which kills the leucocytes but does not destroy the alexins. It was proved in Mitschnikoff’s own laboratory that bactericidal substances are supplied to the serum by the leucocytes. He accordingly admits that alexins may be produced by leucocytes, but conceives that they only pass into the serum on the death of the phagocytes, such as occurs in abundance after the withdrawal of blood. He says there are no alexins in the normal tissues and the blood within the body, because living leucocytes, in his opinion, do not secrete any alexins. Others dispute this assertion. In either case, it would appear that at the commencement of every infective process, as soon as the normal conditions are altered by the presence of bacteria, we get, to a certain extent at any rate, death of the phagocytes, whereby alexins get into the locally exuded fluid. When once there they manifest their bactericidal action, and the primary injury to the vitality of the micro-organisms is due to the alexins. This injury is not detectable microscopically, but in consequence thereof, the secondary process, which may be seen under the microscope, i.e., the devouring of the bacteria by phagocytes, is rendered much easier. It is an interesting point too that should the phagocytes afterwards succumb to any cause, e.g., to one experimentally induced, the engulfed bacteria may then renew their activity, may multiply and show undiminished virulence.

Such, in roughly sketched review, so far as we at present understand them, are the powers, external and internal, wherewith we have been provided by nature to resist the lurking enemy around us.

If these then are our natural protective powers, it would be interesting to think for a moment how, in the treatment of disease or otherwise, these
powers might be enhanced. Can we help nature in this matter and increase our natural powers of resistance to bacteria? Yes, this may occur in two forms, either (1) locally in particular areas or organs; or (2) generalised throughout the whole organism.

(1). *Local* increase of resistive power to bacteria is most easily effected by the artificial increase of blood supply to the part in question. The increased supply of blood brings, not only increased nutrient to the part, but, and this is the point we have under consideration, it brings also an increased supply of leucocytes. The bearing of this in regard to disease is obvious. Increase your blood supply to a part then, and, in proportion to the leucocytes and alexins it contains, you get an important absorptive action on the diseased structures and on the causal agents. The experience gained by increasing the blood supply to diseased parts of the body, such as the limbs, entirely corroborates this view. The most important results in this respect have been obtained by Bier, who was the pioneer of the successful treatment of tuberculosis of joints and bones by means of chronic venous congestion.

We might here notice several methods of inducing an increased blood supply:—

(a) *Venous congestion of a limb* by means of elastic compression.—This method may be beneficial not only in tuberculosis, but also in gonorrhoeal infection of joints and in acute and chronic articular rheumatisms.

(b) *Arterial hyperæmia*—best induced by hot air; for articular rheumatisms and arthritis deformans.

(c) *Mixed hyperæmia*, induced by Bier's suction apparatus; for chronic articular rheumatisms.

(d) *Increased arterial flow* without evident external hyperæmia, caused by the permanent application of alcoholic bandages.

A note with regard to the latter might not be out of place here. Such bandages were first employed in cellulitis, lymphangitis, whitlows, boils, mastitis, etc., and with splendid results. In many cases an excellent recovery from tuberculosis affecting bones or joints may follow the permanent use of alcoholic bandages. This action cannot be due, as was supposed, to any direct disinfection by means of the alcohol, for alcohol cannot penetrate deeply into the tissues, and moreover, the presence in the tissues of any direct chemical disinfectant is well known to be favourable to bacteria which, because of their protective membranes, are always more resistant to antiseptics than are the tissue elements. Alcohol, however, when locally applied, has—because of its dehydrating action, which causes a cutaneous irritation—the direct power of dilating blood vessels, and especially the arteries. In limbs which are enveloped in alcoholic bandages, the effect is
Natural Powers of Resistance to Infective Organisms. 141

seen in local increase of arterial pressure, proving that the action of the alcohol is distributed throughout the whole limb. This is the explanation of the beneficial change which occurs so rapidly in cellulitis, for example, after the application of alcoholic bandages.

The alcoholic bandage consists of eight layers of gauze bandage which has been dipped and wrung out in ninety-five per cent. alcohol and applied directly to the skin. Over this is placed a layer of cotton wool and then gutta-percha tissue. To ensure success it is important that the bandage should cover a large area; for example, in cellulitis of the hand, the whole forearm should also be bandaged.

(2). General increase of natural resistance to bacteria is effected by such agents as induce general hyper-leucocytosis; for if the blood contains an excess of leucocytes it possesses increased bactericidal power, unless the leucocytosis be a pathological one, as, for example, in leucocythaemia. Hyper-leucocytosis, and consequent increase in the preventive powers of the body, has been successfully brought about by the subcutaneous use of various preparations, of which the products obtained from yeasts have been most successful.

It would be tedious to try and enumerate the different substances that have been used with the object of producing hyperleucocytosis and increase of resistance. The injection of various apparently absolutely indifferent fluids (for example, normal saline solution,) into the peritoneal cavity of guinea-pigs, may be followed by a temporary increase of natural resistance. Cinnamic acid is an agent exciting general hyper-leucocytosis. Landerer has for several years successfully treated pulmonary tuberculosis in man by the use of intravenous emulsions of cinnamic acid. The fine particles of cinnamic acid circulating in the blood are deposited in those parts of the body where there are morbid tissue changes, hence in the tissue around tubercular foci. The results of the chronic inflammation thus set up in these areas are dilatation of capillaries, oedema, and accumulation of leucocytes; at a later stage a thick wall of leucocytes is formed, there is subsequent formation of connective tissue, and lastly cicatrization.

Finally, we may note that a general increase of the natural powers of resistance to bacteria may undoubtedly be effected by general dietetic and hygienic measures, and the most convincing proof of this is afforded by the successful dietetic and hygienic treatment of pulmonary tuberculosis at the present day. In this instance nutriment suitable both in quality and quantity, bodily exercise, an abundance of pure air, and all strengthening measures are of great importance.

This paper may be deemed by some to be too detailed and technical—but at any rate it leads up to a practical conclusion—look after your leucocytes. In a country like China, with its trying climatic conditions and
its surging armies of micrococci, we cannot afford to be unmindful of them. We have hard work to do in China, and we need to be in first rate health for it. Take all necessary precautions, such as your medical common sense will suggest, dietetic and hygiene. Get your leucocytes into first-class fighting form, ever ready to cope with an enterprising enemy. So shall we be helped towards happy and healthful lives and be physically fit for the great work that we are seeking to do in China.

PHRASES USED BY OUR PATIENTS TO EXPRESS THEIR SYMPTOMS.*

By C. J. Davenport, F.R.C.S., Engl.

This subject suggested itself to me as being a useful one to most of us. I bring it forward, not because I pose in any way to be a Chinese scholar, but that we may be able to help one another to get at the real meaning of the every-day phrases used by our patients. To rightly understand what our patients feel, is assuredly an important step towards our right diagnosis and successful treatment.

Naturally my subject mostly relates to medicine. Surgical diseases are chiefly on the surface and can be seen. Organic disease and its effects has to be described.

One example will well illustrate the need for our carefully investigating the phrases used by our patients. I had long heard the phrase 肚子爬氣 and jumped at the conclusion that 爬 meant fear. Recently I have learnt that this 爬 means to creep and that the meaning of the phrase is that the patient feels flatulent distension, now in one place, now in another in his chest or abdomen.

I only deal with phrases which I have heard, and whose meaning seems to me somewhat obscure; and will class them relatively to the different organs.

Let us first take the lungs. What is the significance of the phrase 咳氣結胸, meaning phlegm, air, knotted or fastened or fixed in the chest? One naturally concludes that the theory is bronchial obstruction, caused by these two elements being in deadly embrace!

This gives rise to the expression 吐不出氣來, meaning inability to expel the air owing to blockage from within. Another phrase one hears is 提不起氣來, meaning inability to lift up, pump up the air, evidently expressive of muscular, or respiratory weakness or failure.

The expression 閉不過 means smothered, suffocated; the cause of obstruction being from outside. One meets its use in cases of high fever.

* Read at a meeting of the C. C. M. M. A., Hankow.
Phrases used by our Patients to Express their Symptoms.

where the expression 開住了, meaning state of suffocation, is used. It is attributed to chills, or draughts, striking the patient; hence the phrase 風寒拍住了. Such is their theory with regard to quickened or obstructed respiration caused by congestion of the mucous membrane or imperfect oxidation in fever. One is often asked, especially in treating children, for medicine to 開竅, meaning the openings. The breath or food is said not to be able to pass the opening 不過竅. This again indicates congestion and dry mucous membrane; but it may also mean laryngeal obstruction, or dyspepsia. The phrase 氣不足, meaning air or breath not enough or unsatisfying, is very commonly used. It indicates to me loss of lung capacity, e.g., caused by pleural effusion or destruction of lung tissue. When there is added the character 中, 中氣不足, then the meaning is altered to indicate debility or loss of vital force.

Another phrase, 氣促得很, meaning breath greatly obstructed, describes the dyspnea of asthma or that of phthisis. The ordinary wheezing of bronchitis is expressed by the term 喘氣, and panting after exertion is expressed by the phrase 氣吐不盈. The last phrase I might mention in regard to the lungs is one which appears to me rather to indicate muscular or general debility, 氣不夠伸, meaning breath not enough to expel. Evidently it points to loss of strength and may therefore have more to do with heart than with the lungs.

Passing on now to the region of the stomach we find many phrases to express indigestion, each evidently with a slight difference of meaning.

1. 胸口板住了 gas t r i c region, hard or fixed.
2. 胸口壓住了 " oppressed.
3. 胸口隔住了 " blocked.
4. 胸口結住了 " knotted or blocked.

For these conditions of course we are asked for 開胃藥, a digestive tonic.

What exactly is meant by the term 胃食 or 食滞 I am not quite clear. I think it either means food disagreeing, or want of appetite. Parents often say their children are suffering from 肚子有食. This probably means undigested food or some obstruction. I find a dose of santonine and gregory usually clears it up.

Difficulty in swallowing, e.g., in malignant disease of the oesophagus, is expressed by the phrase 喉嚨有哽. To express gastric uneasiness—a stirred up, disturbed, upset stomach two phrases are used, viz., 心裏脹 and 心裏作煩. This often indicates to me the need of santonine. I do not feel quite clear on the meaning of 心裡煩躁, whether it is to express a parched condition, or whether a hurried beating of the heart or embarrassed, troubled heart, e.g., in gastric or cardiac crisis, I do not know.
This region in China, as in other lands, is the hypochondriacs "hunting ground."

After a dog bite, dyspnotic symptoms are attributed to small dogs gnawing at the stomach.

A heavy drinker gets a 荓鰻, meaning wine tortoise. Cirrhosis of the liver, enlarged spleen with ascites, is put down to a 腹鰻 or 水鰻 or 血鰻. Stagnant, dead blood, 污液, is said to settle in the chest or stomach and turn into a 血鰻 or 血塊. The patient's general condition when suffering thus is often expressed by the phrase 黃皮 刮瘦, meaning yellow skin and as lean as if all the flesh had been sliced off; such are the theories which account for affections of liver, spleen and stomach and provide ample scope for endless quackery.

Patients often say their children have 瘦積病, denoting marasmus, malnutrition, and may be worms. The child often is extremely pot-bellied. In Chungking phthisis is called 病病, a very good substitute for our term consumption.

The phrase used to express want of satisfaction, or the sense of vacuum, after food in cases of dyspepsia, is a curious one, viz., 飯不落肚, meaning the food does not reach the stomach.

Turning now to the heart one does not hear many more phrases than 心裏恍 or 心裏跳; meaning palpitation.

A heaving heart-beat is expressed by the phrase 心裏碰. A fluttering palpitation is expressed by the phrase 心裏吊倒直擺, meaning the heart feels hung up and continuously shaking, or moving from side to side.

Phrases used in regard to the alimentary canal are mostly clear. Constipation is attributed to 火, meaning exciting humors, fever, full habits. Hence the common phrase 肚子結住了火, meaning the state of pent up heat or humors in the abdomen. In this connection one often hears the term 沉脹 used; or a little expression, 大便作脹. It evidently means a sense of fullness, downward pressure, and withal constipation. It differs from 塗脹, which term may be used either in reference to micturition or defecation, e.g., 肚子往下塗. 沉脹 apparently means downward pressure, the impulse being from above.

脹塗 apparently meaning dragging pressure, the impulse being as it were from below. Both these terms are used in connection with dysentery; the former rather expressing the straining, the latter the tenesmus. The common phrase here for dysentery is 刮紅白凍子. I am told it means scraping red and white jelly masses, or congealed masses.

Patients often say 肚子有陰陰疼 or 肚子有陰陰疼; whichever may be the right character, the meaning is clear, viz., slight stomach ache,
Passing on to more general symptoms we find many to express debility. 血虧, meaning anemia and debility, mostly used in reference to women and attributed to repeated losses at childbirth. 脾虧 means loss of vital force or energy, and as a rule put down to excessive venery. Here we have a phrase, 脾火不足, meaning insufficiency of force and fire—strength and vitality. A common phrase used to express lack of recuperative power is 打得不精神.

Some express their loss of nerve force by saying 八像掉了魂, others express their weakness in the phrase 走路像掉了氣. Giddiness and dizziness are expressed by 頭昏眼花 or 昏迷 or 昏昏沉沉 or 心裏迷失了, all meaning confusion and stupification. Loss of will power, or loss of memory, is expressed by the phrase 心裏不作主. Severe aching of the joints may be graphically expressed thus 骨頭像脫節一樣. General aching and weakness is 四肢癱軟. Pains moving about the body call forth the phrase 遍身走得疼 or 氣轉得疼.

The terms 氣血不過節 or 血脈不過節 or 上氣接不得下氣 or 中氣不足 all point to circulatory obstruction from one cause or another—the latter meaning the upper and lower circulations cannot meet and the central supply is insufficient—probably meaning congestion caused by respiratory obstruction. A useful phrase in the diagnosis of rheumatic affections is 骨節走天色.

The above are a few phrases culled from every-day work. Doubtless many more can be added, but I trust the few herein mentioned may help us to get nearer the truth in relation to our suffering patients, and hence fit us the better to deal with their needs.

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A PECULIAR CASE OF ASCARIS LUMBRICOIDES.

By W. H. Jefferys, A. M., M.D.

J. S., aged eighteen months, American, having a previous history of difficult dentition and several attacks of intestinal indigestion, also an attack of acute bronchitis two weeks previously, from which he had entirely recovered and convalesced, was under my notice from the beginning of the following attack. For a week the stools were regular in time (one a day) and amount, but clay-colored, pasty, and unformed. The diet at this time was well chosen and normal for the age, with a basis of Mellin’s food. Child bright, rosy, and sleeping perfectly. On the afternoon of March 23rd there was a distinct chill (not a rigor), which lasted for about twenty minutes. That night he slept restlessly, and in the morning was flushed and had a temperature
of 102.4. Lungs and heart normal, no diarrhoea or vomiting. On this night there was noticed a scarlatinoid rash over chest and back and knees, neither very bright nor very typical, but as far as it went, pointing to scarlet fever. The throat was red and evidently painful. The patient was strictly quarantined, and next morning the rash was brighter but had not spread. Temperature 102.1. Evening temperature 101.2. Pulse 145. On the 25th the rash was fainter and on the 26th there was but a mottling of the skin left. Throat normal again. On the 27th rash had disappeared. For several days the temperature ranged from 100 to 102, being higher in the evening than in the morning, except on the 27th, when a laxative was given and the diet changed from Mellin's food (with milk) to Nestle's food and chicken tea alternately. From this time the temperature ran lower, but the patient was weaker and paler. The character of the stools changed with the change of food to smoother and darker. On the morning of the 29th, the patient coughed up a small specimen of ascaris lumbricoides. A grain of santonine was given at 9 a.m., 2 p.m., and 7 p.m., and two grains of calomel at 8 p.m. Fifteen more worms were passed at 7 that evening and next morning twenty-four worms. A dose of oil and rhubarb was then given and twelve more worms were passed, apparently emptying the bowel, but not so, as by the end of a week seventy-nine were passed. At 8 a.m. that day (the 30th) the temperature was normal and remained so from then on; the baby taking a long deep sleep and making a rapid recovery. On microscopic examination of the stools a fair number of eggs of the parasite were found. In all there were eighty-nine specimens of the adult parasite passed within the month, varying from two and half inches to eight inches in length; male and female being about evenly divided as to numbers. The worms resemble, as far as I can tell, in all respects those specimens which I have brought with me from America, except that in the male I can find but one, instead of two chitinous spicules of the cloaca, but I do not feel convinced of this difference. It does not seem likely to prove a correct observation.

To go back. On the evening of the 27th, the parents of the child were desirous, for reasons of convenience, to move him to the isolation hospital, but this I refused to allow, as at no time did I feel sufficiently convinced of the presence of scarlet fever. I then asked Drs. Boone and Reid to meet me in consultation on this subject, and the verdict was to keep the child at home, but to observe strict quarantine. This was done till the first large batch of worms were passed, when quarantine was rightly broken.

The following points seem to be noteworthy in this case. It closely resembled scarlet fever up to the fourth day. It presented really none of the text-book symptoms of ascariasis, I mean those which are supposed to point distinctly to this affection, such as "restlessness, irritability, picking
of the nose, grinding of the teeth, twitchings, or convulsions” (Osler), though the large number of parasites would lead one to wonder why not. There were no “colicky pain, meteorism, vertigo, chorea, or convulsion. No intestinal obstruction” (Tyson). Of the number, Tyson says: “Commonly one or two, but sometimes large numbers.” Osler says: “Usually not more than one or two are present, but occasionally they occur in enormous numbers” and later cites a case in his own practice where “more than thirty” were passed within a few weeks. In case of my patient, fifty-two were passed inside of thirty-six hours and eighty-seven inside of a week by a baby only eighteen months old. Two other interesting questions are these: 1st. How did this so carefully fed child contract the disease? I cannot answer this question definitely. This disease is excessively common in China. The father had worms last summer, the child lives in the compound in which is a boys school, has an amah, and has lived largely on buffalo milk this winter. This milk is supposedly always boiled and certainly is always well heated. Yet I am inclined to think it the source of the trouble. But I have no proof to back this opinion, which is founded but on imperfect exclusion of evidence.

Then, 2nd, why are there only eggs and adult and all but adult worms? Why are there no small and middle-sized worms? Is there but a single infection with eggs or larvæ, these hatching and growing to maturity and in turn laying eggs which do not have time to hatch before the adults betray their presence? For after careful search I find neither small worms, broken eggs nor eggs about to hatch. And yet here are eighty-nine adult worms; certainly none as short as two inches. Do eggs which are laid in the intestine, hatch in the same? Are eggs the condition of the parasite at the time of infection, or is there, as many think, an undiscovered stage in the life history?

There is a strong and, once perceived, always afterwards easily recognized odor about these worms, which I have noticed before. And the stools partake of the same. I think that a careful observer might easily recognize the presence of worms in the bowel from noting the smell of the faeces, provided the parasites be present in sufficient numbers. In the present case the odor was noticeable at a distance of several feet. It is not easy to describe an odor satisfactorily, but I should say of this that it is a rank, mouldy smell, similar to that of a damp cellar, and rather nauseating. I would call this the odor sign of the parasite and ask that others who have the opportunity should note it. Of course the microscope is the test par excellence, but it is not always at hand. Perhaps too a familiarity with this odor may call one’s attention to the trouble when, as in this case, the stools were observed in the routine examination of a patient whose disease was an obscure one. The odor is also noticeable on the breath, probably for the same reasons that onions are.
Finally let me call particular attention to the enormous number of parasites and the tender age of the child. The very age of the child is enough to have thrown one off the track in making the diagnosis. There is no proper library in Shanghai so that I can quote no interesting statistics, nor can I speak with any certainty, but this combination of youth and numbers must be extremely unusual, to say the least. The mass of worms packed a nine-ounce bottle completely full, and by this one may judge what a space they must have occupied in the bowel of a baby of eighteen months.

SOMETHING NEW UNDER THE SUN.

By J. B. Fearn, M.D.

A man presented himself at the regular clinic one morning several weeks ago for some trouble of the penis. After a hurried examination he was told to stop in the hospital, as an operation would be necessary. My thought at the time being that it was only an ordinary case of phimosis—since childhood—with adhesions. Since the case could only be relieved by an operation he was turned over to the Chinese secretary to be entered on the hospital books and made ready for the operation.

The next morning upon closer examination there seemed to be some hard growth within the elongated prepuce. When a probe was introduced into the preputial opening—which was very small—the sensation of necrosed bone was transmitted. The grove director was finally introduced and the prepuce divided. With small dressing forceps a piece of stone—about the size of a beech-nut—was extracted. This was followed by fourteen more such stones until we had a Japanese match box full. The weight of these stones, when dry, was gr. 190. They fitted one into the other most perfectly, as though they had been “made to order.”

The man gave a history of ordinary phimosis since childhood. He was the father of four children, but since this accumulation within the prepuce had become so extensive his family had ceased to increase.

He carried about with him a sharp silver probe, which he used to separate the stones so as to allow the urine to flow more readily. With this aid only was micturation accomplished and that very slowly.

Circumcision was performed and the man made an uneventful recovery. The foreskin was a bit indurated from constant contact with the hard stones as was also the glans penis. This all disappeared soon after the operation.

The patient showed no signs or symptoms of stone in the bladder.
THE MICROSCOPE AS AN AID TO DIAGNOSIS.*

By O. T. Logan, M.D., Chang-teh, Hunan.

Shortly before I came to China I was told by a medical missionary that, owing to the prevalence of the lumbricoid worm, it was the practice of many missionaries to take *santonin* monthly. Acting upon his advice I tried to do my duty, but the result was that I made myself one of the most miserable of beings for many hours, during which time the world looked literally and figuratively of an icteroid hue, without, however, increasing the mortality of the interesting lumbricoid. This was in the former days of our mission. Now we insist upon seeing traces of game at least, before we fire at ascaris with our therapeutic gun, except in dispensary practice where this is not practicable.

After I arrived in China it was said in my hearing that the only way to be sure certain abdominal tumors were not composed of worms, was to give *santonin* in five grain doses every day for four or five days. In our premicroscopic days I was quite willing to agree with both the gentlemen quoted. Now I am not and I dare say that these progressive workers have undergone the change of mind as myself, especially if they have had a few *santonin* experiences. Manifestly it is bad practice to give a drug on suspicion when positive or negative proof is so easy at hand by means of the microscope.

I recall a case where I believe a valuable life was sacrificed, which our present knowledge of microscopy would have prevented. The patient was taken with a continued fever, and according to the practice of those days, was given sixty to eighty grains of *quinine* daily for weeks. In the light of the present, the man had typhoid, from which he would have had a splendid chance to recover had he not been handicapped by protoplasmic poisoning by *quinine*. This was in 1898, and it was "good practice" then. Now in the writer's opinion any physician, whose Board of missions could afford to furnish him a microscope, who treats a case of continued fever without positive evidence of malaria, with such doses of *quinine*, is culpable in the extreme.

Coming to the subject proper I will first consider the diagnosis of INTESTINAL PARASITES.

Of the numerous intestinal parasites only four are of especial interest to us, i.e., the ascaris lumbricoides, the ankylostomum duodenable, the oxyuris vermicularis, and the tricocephalus dispar.

* This paper was read before the C. C. M. M. A. at their meeting in Kuling, August 18-21. Published by request.
The lumbricoid is so common that many natives regard its existence within them as much a matter of fact as their "queue" without, nevertheless this worm may cause a great deal of trouble as we all know. The worm seldom shows us its corporeal presence, but its solicitude for progeny makes its detection easy with the microscope. To find the ova all that is necessary is to take a portion of the fecal matter about the size of a hemp seed and press it between cover glass and slide. The specimen selected should be free from vegetable fibre and of such consistency as will make its spreading into a thin layer an easy matter. If too dry, water must be mixed with it. Recognition is usually easy with a two-thirds objective, but a higher power should be used in case of doubt. In a recent examination of the feces of our two children, several ova were found, with a two-thirds objective, in every field in the case of the daughter, who afterward passed four worms, while the son's specimen, with but one worm to his credit, showed a dozen eggs under each cover glass. During the examination of the latter specimen I was shocked to find what appeared to be the ova of the ankylostomum. The eggs in question were of light grey color, without the rough albumenous envelope characteristic of the lumbricoid ova; moreover the shell looked delicate and transparent. The granular yolk was not typically segmented, but this does not always occur in the case of the ankylostomum, especially after the eggs have been passed some hours. It was not pleasant to think of giving our two-year old child thymol (having no guide as to the proper dose for one of his age) so I moistened the specimen and laid it aside in a covered staining dish, knowing that within twenty-four hours or less the embryo would be moving within the shell if we were dealing with the ankylostomum. To my great relief there was no such movement, and furthermore I found no ova of any description after a single lumbricoid was expelled, so that the evidence was conclusive against ankylostomiasis. I mention this case to show how careful one must sometimes be to keep from arriving at a false conclusion.

**THE ANKYLOSTOMUM DUODENALE.**

I have met with four cases of ankylostomiasis; the diagnosis being based upon microscopic findings as well as clinical symptoms. Two of these were successfully treated, one refused treatment and one was treated with doses of thymol, which were too small. The eggs of this worm are somewhat smaller than those of the preceding parasite and are more uniformly elliptical. The color is light grey and the shell transparent and delicate. In thick specimens these ova are almost sure to be overlooked, being obscured by the bile stained fecal elements. The shell is more or less separated from the yolk, which is usually segmented; the segments resembling round epithelial cells with their granular substances and nuclei. As noted above the embryo
matures very rapidly and escapes from the egg. It is said that under favorable conditions a few hours is sufficient for this to take place. If the specimen is old*, the more liquid part should be examined for the live worm, as my observation shows that they take the line of least resistance when they hatch and are to be found chiefly in the thinner part of the specimen. Under a cover glass they are to be found around the edges, apparently making frantic efforts to escape. Even in old specimens some unhatched eggs are sure to remain, which represent, I believe, the male element chiefly, as I have not observed a single male in the many specimens of the two cases that have been incubated in our laboratory. The worms, when expelled, are hard to find in the stool. The writer uses a sieve to facilitate searching.

THE OXYURIS VERMICULARIS.

The eggs of this parasite are said to resemble the ankylostomum†, but they are not found in the stool. The worm itself, however, is often passed, and may also be seen inside the anus. The microscope is of aid in its recognition.

THE TRICOCEPHALUS DISPAR.

Very frequently will this worm's egg be found in the stool. It is very regular in outline and like the egg of the lumbricoid of a yellowish brown color. At either end will be found a protuberance. Its transverse diameter is about half as great as its length. Many of our text books, and notably Manson, give detailed descriptions of the eggs of these and other parasites, and any average observer will be able by means of these books and his microscope to become familiar with the different ova. The writer has had no other help.

BLOOD EXAMINATION.

When we enter this field most of us feel like we are in a wilderness. The science is such a new one and is growing so fast that it is hard for the busy missionary doctor to keep even in sight of the advance guard; still we must follow on and catch up what we can, so that we may give our cause the benefit of the patient toil of those who are blazing the path in this direction. I shall mention only that which in my opinion is of practical interest, omitting that which is not well settled or which is of scientific import only.

You will no doubt pardon a little digression here which, strictly speaking, may not be in place in this paper. The thought is another's, and is so good that I must pass it on. Some years ago I saw a paper on the subject

* The writer exhibited a specimen two months' old which had been kept moist by addition of water. The embryos were still alive. Unhatched eggs were also present in large number, but the yolks had lost their characteristic appearance.
† In the discussion following, Drs. Hodge and Davenport said they had seen these ova in fecal matter more than once.
of the blood that was delivered before the Y. M. C. A. of a medical college in Chicago. The author of this paper—I have forgotten his name—quoted Genesis iv. 10, "The voice of thy brother's blood crieth unto me from the ground." His comment was that the leucocytes seem to possess intelligence and that the Scripture could be taken literally without doing violence to our present knowledge of the blood. It is not straining our credulity to believe that each of these blood cells has a voice that can be heard by the maker who so wonderfully formed them. Thus the microscope may be said to have made the Scripture appear more reasonable to a certain class of people who would test this as they would any other book.

THE MALARIAL ORGANISMS.

It was my conviction before the advent of the microscope in our mission that estivo-autumnal malaria was very common in Central China, but after repeated examinations of the blood in cases of continued fever, I have failed to find a single case in Chang-teh, so that now I am doubtful of its existence as an endemic disease in our part of the empire. My conclusions, however, are not yet final.* I consider it a duty we owe to the missionary cause and to the medical world to subject the blood of cases of continued fever to examination; first, because it will enable us to treat our cases intelligently; and secondly, that we may know the geographical distribution of estivo-autumnal fever, which is so easily confused with typhoid. In many cases the only way to differentiate the two conditions is with the microscope.

There is nothing easier, given a good well spread specimen of blood, than a microscopic diagnosis of simple tertian or quartan malaria, provided quinine has not been given and provided also that several hours have elapsed since the chill. The recognition of the estivo-autumnal plasmodium is more difficult, being easily overlooked in its young form, and on the other hand, it is easy to mistake a vacuolated corpuscle or a corpuscle which has a blood plague superimposed for a young parasite. After a few days the beautiful crescent form develops and then diagnosis is very easy. The question of the coexistence of typhoid and malaria naturally presents itself here. Osler states that in 685 cases of typhoid coming from malarious regions, there was no case in which malaria was a complication. He insists that the term typho-malarial fever has no place in medical literature; its only use being to falsify death returns. Ewing, studying the blood of soldiers who had just returned from Cuba, where both of the above diseases were common, concludes that in cases of typhoid, the malarial organism, if present, disappears from the peripheral blood early and that its presence in no appreciable way affects

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* Several of the physicians present have seen cases; the diagnosis being confirmed by the microscope, but all admit that the disease is not common.
The Microscope as An Aid to Diagnosis.

the temperature chart, nor the course of the disease. During convalescence, however, the plasmodium may again become active and cause a true malaria.

COUNTING THE BLOOD CELLS.

This can be done, after some practice, by anybody who will carefully look after little details, provided of course that he has the necessary apparatus. A count of the white cells is of value in suspected hidden inflammation, and generally speaking, indicates the degree of inflammation. For instance, catarrhal appendicitis gives not over 15,000 leucocytes to the c. m. m., while the more inflammatory type shows a higher count. A blood count is of importance in differentiating typhoid from cases of hidden inflammation, as typhoid uncomplicated causes no increase in the leucocytes. A case of ours illustrates the above statement. A stone had been removed from the urethra and an abscess followed which caused retention, so that suprapubic drainage had to be established. After the wounds were well on their way to heal and the function of the urethra reestablished, the patient developed a temperature which kept near 103°; search for the plasmodium of malaria was negative, and the blood count, after repeated trials, was normal, so that a diagnosis of typhoid was made very early by exclusion, and further developments proved the disease to be such.

Cabot gives the following list of affections which suggest pus formation, but which do not raise the leucocyte count: the various colics, intestinal, hepatic, uterine, and renal, typhoid fever, floating kidney, fecal impaction or simple constipation, ovarian neuralgia, and an attack of the grippe or malaria occurring during convalescence from a surgical operation. Occasionally, this author states, leucocytosis is absent even when pus is present. This means that the pus is perfectly walled off or that the abscess is sterile, the bacteria having died. In very severe cases of infection, when the system is so overpowered that the leucocyte warriors have to make an unconditional surrender, there is no leucocytosis.

In the differential diagnosis between hematocele and pus tube, a blood count is said to be of great assistance.

A count of the red cells is indicated in cases of anemia to show the amount of impoverishment and to add a unit to help in diagnosis. Generally speaking in chlorosis the count seldom falls below 3,000,000, while in pernicious anemia, Ewing states that in an average case, well established, the red cells vary slightly above or below a million.

Cabot points out the importance of using the hemacytometer in accident cases attended with shock, when the loss of blood is not known. He maintains that a count below 3,500,000 in a case not known to be anemic before the accident, indicates that the shock is from loss of blood and that transfusion should be considered, while if the blood count is normal, one
must look to some disturbance of the nervous system, such as concussion or compression for the cause. In concealed hemorrhages from extrauterine pregnancy, rupture of the liver or spleen, or the bursting of an aneurysm, this authority claims that a count of the red cells is of utmost importance in arriving at a diagnosis. He calls attention to the fact that in the above cases a few hours must elapse after the accident, so that fluid may be absorbed from the tissues, otherwise the blood count will not show the real state of the blood. The counting of unstained cells is insufficient. An enlarged spleen or liver may give a high count, but a differential count may be necessary to say whether the trouble is leukemia or abscess. If it is leukemia the myelocytes will be the prevailing type, if an abscess, polymorphnuclears will present an overwhelming majority.

There are many diseases that cause an enlargement of the glands. One of these is lymphatic leukemia. If this disease is present, a differential count will show that the lymphocytes comprise eighty or ninety per cent. of all the white cells. In pseudoleukemia with glandular enlargement, identical with lymphatic leukemia, the blood shows no marked leucocytosis unless the disease takes on the malignant nature, as Ewing thinks has been proven it may, of lymphosarcoma.

A study of the stained red cells is important in all cases of anæmia. Since beginning this paper a patient, extremely anemic, presented himself at our dispensary. As usual in such cases a blood smear was made, and when dry examined, after being stained with Jenner's stain, no marked changes could be found and the diagnosis leaned heavily toward ankylostomiasis. A purgative brought sufficient proof next morning in the shape of numerous ova of ankylostomum.

In chlorosis the red cells stain poorly in the center, owing to the deficiency of hemoglobin. This fact, together with a low hemoglobin index, is characteristic of this disease. Normoblasts are rarely present and megaloblasts practically never.

The picture in pernicious anemia is different. Together with a large number of megalocytes and poikilocytes are found normoblasts and megaloblasts; the latter outnumbering the former. Moreover the hemoglobin index is high in contradistinction to chlorosis and secondary anæmia. In advanced cases of carcinoma, the blood may present changes similar to those in pernicious anæmia, but the hemoglobin index is said to be low.

Before leaving the subject of the blood I will say that it behooves us to make examinations of the blood in cases of lymphangitis and chyluria for filaria, of the blood clots in urine for bilharzia hematobium, of the blood from the lungs for the distoma pulmonale and its ova. Just now the trypanosoma is attracting attention; cases having been observed in Africa by
Manson and Maxwell in patients who had been bitten by rats and following sores caused by insect bites. A description of this body, which seems to get its name from its manner of progression, was given by Dr. Booth in the March issue of the Medical Missionary Journal.

To attempt to go into all the diseases in which the microscope is of use in diagnosis would exhaust the writer's resources, even if it did not the patience of his hearers, but it may not be out of place to mention briefly some other conditions in which the microscope plays a diagnostic part. In suspected cases of actinomycosis, search should be made for the ray fungus. We have had a case of this disease occurring in the hand; in glanders Simon states that the bacilli are constantly in the blood and may be demonstrated by proper staining; in relapsing fever, dysentery, typhoid, in cholera, in typhoid if one is able to keep cultures growing for Widal's test, which it is said can be done at ordinary room temperature; in Bright's disease, gonorrhoea, gonorrhoeal ophthalmia, tuberculosis, trichinosis—in the latter condition it has been found that there is almost always an eosinophilia of forty to eighty-three per cent; this, associated with muscular pains, is quite suggestive of this disease.

The subject of cellular pathology has not been touched and bacteriology only mentioned incidentally. To enter either of these fields would lengthen this paper unduly.

TECHNIQUE.

Thinking that possibly some of my colleagues may have had even less experience than myself, I am adding a few remarks on technique.

First, the eye pieces and objectives must be clean; when not in use the objectives should be kept in their proper cases and not attached to the nose piece. The eye pieces require frequent cleansing with Japanese lens paper or fine cotton cloth. It must be remembered that in taking an instrument from a cooler to a warmer place, even in the same room, a film of moisture forms on all the glass surfaces which will prevent good definition. I have blamed my technique and suspected our instrument more than once because I did not remember this simple point. In blood work absolute cleanliness is the price of success. Slides and cover glasses should be washed with soap and water, rinsed and stored in alcohol. In polishing, only cloth that is grease free should be used and a sufficient number of layers should be used to prevent the oil always present on the fingers from getting through the meshes into the glass.

In spreading blood for staining I have found Ewing's method the simplest and best. The end of a slide which has been smoothly ground is cleansed, and upon this is caught a rather large drop of blood. The end of this slide is then placed upon the surface of another clean slide lying
flat, and when the blood has spread the first slide is inclined at an angle of forty-five degrees and drawn toward the opposite end of the flat slide from which it started. The amount of pressure regulates the thickness of the smear. For blood staining I use Jenner's stain*, which fixes and stains in three to five minutes. It has the advantage over Ehrlich's triacid mixture, in that it requires no fixation, and it stains the malarial organism. For the examination for the malarial organism nothing equals fresh blood spread between cover glass and slide without pressure.

For blood counting I have used the Thoma-Zeiss instrument. In this work a mechanical stage is almost a necessity.

In conclusion I will say that I believe when we consider what the microscope has done for humanity and the spread of the gospel, we should become more familiar with it. Years ago when the Panama railway was built, it was said that every cross tie represented a man's life, so great was the mortality. Yellow fever, malaria, and dysentery no doubt did most of the deadly work. Now, thanks to the findings of the microscope, there is no reason why there should be a great mortality in building of that greater thoroughfare—the canal. That the missionary can safely go into the most malarious parts of the world, armed only with a Bible and a mosquito net, is due to the discovery of the malarial parasite and its cycle in the anopheles. That the late Major Reed and his associates could, within a few years, working against awful odds, banish yellow fever from Havana and that it is impossible for that disease ever to get a foothold in any civilized country, is due to the fact that the discovery of the malarial plasmodium in the anopheles led investigators to suspect the whole mosquito tribe of conveying yellow fever and the eventual fastening of the blame upon the beautiful silver spangled stigmia—the fairest of the whole family—whose sharp thrusts have caused more deaths than the poisoned arrows of savages or the daggers of villains, causing periodical panics and stagnation of commerce in the southern states and effectually hindering the carrying of the gospel and civilization to many parts of the western hemisphere. When I consider the above, I feel like taking off my hat to one of the greatest benefactors—mute though it be—of the human race, and one of the mightiest aids, because of its discoveries and possibilities in the evangelization of the world.

In the preparation of this article I have freely consulted and used facts from Ewing's "Clinical Pathology of the Blood," "Simon's Clinical Diagnosis," Masser's "Medical Diagnosis," Osler's "Practice of Medicine," Manson's "Tropical Diseases" and Warren and Gould's "International Text Book of Surgery," Section on Blood Examination by Cabot.

* This stain can be bought in dry or liquid form of any first class dealer of microscopic supplies in the U. S. If the powder is used it must be dissolved in chemically pure wood alcohol. My stain came from Bausch and Lamb Opt. Co., Rochester, N. Y.
Dispensary Furniture.

A LABOR CASE IN SHANTUNG.

By Francis F. Tucker, M.D.

I was called up a few nights ago to attend a labor case in a village some nine 里 (three miles) away; the native dispensary assistant sending word that he did not feel that he could attend to the case alone. Mrs. Tucker also prepared to go, but as one small donkey was all the transportation at hand, I went alone. The woman had been in labor several days. A hand had appeared, and, after all native aid had been unavailing, the child’s arm was hacked off. My assistant was called several hours later, and I arrived on the scene shortly thereafter. The patient lay on a bed of sun dried mud bricks, and her every movement raised a cloud of dust. Under the circumstances there seemed to be but one likely outcome of the case, but, for the sake of humanity, we anaesthetized the patient and delivered the child after an hour’s hard work; the placenta coming away with the child. The legs of the child were extended “splintered” over its head in utero. In a hundred cases in Chicago I had met with this circumstance but once. The husband was very grateful, proclaiming that there was no one with so much “heart” in the whole district. As we cannot watch such outside cases, because of the many demands of the hospital, favorable reports had to be relied upon, but it was not surprising that she died thirteen days after delivery. Pneumonia and embolism contributed to the result.

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DISPENSARY FURNITURE.

By W. H. Jefferson, A.M., M.D.

1. Most of us think we have the best thing till we go around a bit and “look see.” This latter I have done and still think I have the most convenient dispensary table in Shanghai. It is modeled on a larger table in the out-patient department of the Pennsylvania Hospital, Philadelphia. This one of mine (see photo.) is made of hard wood and is Ningpo varnished. It should be absolutely without ornamentation and all corners should be rounded. It is three-storied, each floor narrower than that below it, upper floor for large irrigating bottles of solutions, not shown in the picture. Middle floor for drugs, ointments, and so forth, in daily use for surgical patients. Lower floor for dressings and instruments. There are four large drawers, divided into convenient compartments, for plain cotton, bandages, waxed paper, etc. On the far side is a shelf that can be raised for use or lowered for space. This shelf
is for the instrument trays and sterilizer, which is practically an enamel fish-
boiler on a gas or oil stove and is kept boiling during the clinic time, and
every instrument used (except the knives) is thrown into the boiling water
every time it is used and left there till wanted, when it is fished out with
convenient forceps. (I believe this saves a lot of unnecessary infection of
wounds.) The table is long and narrow, so that one can stretch through it
with ease. It is intended to stand in the center of the dressing room and in
the axis of the same with benches arranged around the room. In a small
room the table might stand with one end to the wall. Cost in Shanghai
$18.00 Mexican.

2. One's back is saved much aching by the simple devise of a high narrow
stool (several of them) used as a rest for all feet and legs treated in the out-
patient department. It saves the doctor from stooping for examination, the
dresser from stooping to dress, and the patient the strain of holding up his
often very painful leg or foot. (See photo.) This is also hard-wood and
Ningpo. Perfectly smooth and rounded in its short axis on top. Once
tried, always used. Cost under a dollar each. These should be ranged in
front of a special bench or two, and all leg cases can be pointed thither and
soon acquire the habit.

3. We use a zinc boiler for sterilizing and rendering absorbent almost
all the cotton used in the out-patient department. By using Canton flannel
prepared in this way, and native cotton ditto, we save nearly one-half the cost
of these expensive goods and lose only in looks, not I think in results. In
the operating room and wards we use only imported dressings. The boiler is
ugly but useful. It stands on a crossed-iron stand and is heated by two gas
stoves or oil stoves. (The process is similar to that devised by Dr. Borland
of Hankow, but after the boiling the cotton should be rinsed several times in
clear sterile water.) Cost of boiler and stand, about $5.00.

I humbly submit these three devices for adoption "with improvements"
by labor-saving hard-workers.
ST. ELIZABETH’S HOSPITAL, SHANGHAI.

By JULIET N. STEVENS, M.B.

Although we suffered, and still suffer, from the woeful ignorance of the builders of this eastern country in regard to hospital architecture and the details of hospital finishing, we have two buildings of which we are not ashamed.

It was hard work from the first, for I was asked to give an opinion on plans for a hospital in China within a week of my arrival in the country. After two years’ residence I know how wise I was to realize that there must be needs and reasons for differences in detail from our home hospitals. My light was not brilliant at that early stage, but some changes were made that I am not at all inclined to regret.

For instance, a second stairway; that I suggested when I found the plan had but one; the bathrooms introduced into the plan and a few other little odds and ends in the way of closet room and so on.

The two buildings are of grey brick with trimmings of red brick. In appearance they are of the stereotyped Shanghai style, from which there seems to be no getting away.

The usual plan of reducing veranda space to make bathroom has not been followed, and one of the great beauties of the hospital is the glorious veranda. It is twelve feet wide and extends the full south side of the main building, forty feet.

It is difficult to persuade the women that the veranda is a nice place for them to sit. The children enjoy it greatly, and the ones that are well enough are out all day long.

Later a part, at least, of the veranda will be enclosed for the cold weather.

There are three wards, all in the main building. Although putting so much under one roof made it impossible to have windows on opposite sides, two of the wards have windows on two sides, south and west, and the largest ward has windows on three sides—south, north, and east.

The larger ward upstairs is called "Winslow Ward," named in memory of Mrs. Winslow who, before her death, succeeded in interesting friends in the medical work for women in Shanghai, so that an impetus was given and the $10,000 asked for soon subscribed.

Winslow ward is a fine room; the length of the main building, sixty feet, and twenty feet in width. It is beautifully light and airy, as are all the wards.
Across the hall from "Winslow" is the surgical ward, and next to that the operating and sterilizing rooms to the north. The operating room has a large window, eight feet in length by some ten broad, and is therefore well lighted.

On the first floor is another ward, used for medical cases; also a limited number of private rooms. Downstairs, too, is the department for maternity work. The latter consists of three rooms that answer very well for the present. At the foot of the main staircase is the hospital chapel.

The central staircase is, in every way, admirable. The builder acquitted himself well in that particular. The treads are low, the staircase wide, and the one turning of such shape that a stretcher is easily carried up.

There is an office near the main entrance, where records are kept and hospital business transacted.

In addition to the main rooms there are several useful closets and a dumb-waiter. Of this dumb-waiter the hospital assistants were slow to see the use, but it is of considerable value in sending food to the upper wards.

A covered way from one of the rear doors, for there are numerous outside doors, leads to the dispensary building. On the lower floor of this building is a fine waiting room for the clinic patients. Off the waiting room are two consultation rooms, and opening from the main consultation room, a drug room.

The present management of receiving and dismissing patients works admirably.

The patient is received in the larger consultation room. If the case requires, she is taken to the inner room for further examination. The dressing is applied and the prescription written, and the patient ushered into a passage-way beside the drug room, and off the main consultation room. This passage way is wide enough to accommodate a bench and has an outer door. On one side is a window into the drug room, through which the patient hands her prescription.

When she receives her bottle or ointment jar there is but one thing she can do—walk out the outer door, as the door back into the consultation room cannot be opened from the outer side.

This is the only possible way to handle clinic patients comfortably. There is absolutely nothing original in this idea. It is in use in at least one other hospital in Shanghai, and it is through a suggestion of the head physician of that hospital that the same plan is followed here.
The drug room is well-lighted, well-arranged and well-equipped. It has two outside windows, ample locks and drawer room as well as shelving, and a small gas stove and lead-lined sink, with cold water.

On the second floor of the dispensary building are rooms for nurses and assistants, comprising: bed-rooms, a bath-room, and dining-room. In the rear of the dispensary building, but not really of it, are the kitchen and laundry.

The two main buildings have gas and cold water piped throughout, with standing washstands or lead-lined sinks in various useful places. Hot water is obtained from the fine "lau-hoo," a native hot water apparatus in the laundry.

There are also two small buildings of one floor each, containing rooms used as store-room and servants' sleeping quarters. These are quite detached from the two chief buildings.

A place for satisfactory isolation of infectious or suspicious cases seems not to have been thought of in the original plan, but that will be the next thing added, and before a great while.

The hospital is well located for work, just off Avenue Road, near Park Road, in the Sinza district, where there is a very large native population on all sides but one.

From the opening of the hospital, March 17th, 1903, to September 1st, 2,432 clinic patients were cared for, 1,113 of whom were new patients; 109 patients were admitted to the house, 146 visits made to patients outside.

The work is growing rapidly, and as St. Elizabeth's is now the hospital of the American Church Mission in Shanghai for women and children, there is no limit to the work. The women who have been going for so many years to the clinics of the women's department of St. Luke's Hospital, Hongkew, have been somewhat slow in learning that they cannot now be treated there, as that is the men's hospital, but they are learning the fact.

There is still unoccupied space in the hospital compound for other buildings as they may be needed.
ABSTRACT OF PAPER ON ACNE AND ROSACEA, BY THURSTON GILMAN LUSK, M.D.
Post Graduate, June, 1903.

Acne is a disease of the subaceous glands, and is the most common of all skin disorders, eczema not excepted. The majority of those slightly affected never apply for treatment, and for that reason it holds second place in statistics.

The lesions of acne consist of comedones, papules, pustules, and tubercular or deep-seated indurated abscesses. When consisting mainly of small, firm, red elevations, the condition is known as popular acne; when superficial pus collections predominate, pustular acne, or acne vulgaris; while deeply situated hard and painful nodules, with or without central abscesses, constitute acne indurata. All of the above forms may co-exist.

The lesions of rosacea consist of erythema, inflammatory papules and pustules, with dilated, superficial blood-vessels, and in chronic cases, hypertrophied connective tissue. The papules and pustules are not situated around the comedo, as in acne, and the inflammation is more diffuse.

The distribution of acne is principally on the forehead, nose, cheeks, chin and neck, but the shoulders, chest and back are also frequently involved, and may be the seat of the disease when and after the face is free. Rosacea is limited to the face; the middle third, embracing the nose and cheeks being the most frequent location.

Acne begins at the age of puberty and diminishes after the twenty-fifth year, while rosacea is a disease of middle life, beginning usually after the thirtieth year.

Indigestion, either gastric or intestinal, is always present to a greater or less extent, as is also constipation.

Menstrual irregularities, especially dysmenorrhea, are also contributing factors, and lesions are always more abundant during the menstrual flow, even though the function be normal.

It is probable that the causes enumerated act only so far as to produce an inflammatory condition in and around the sebaceous glands and follicles, and thus prepare the soil for the invasion of the staphylococcus epidermidis albus, which is always present on the skin.

The streptococcus also joins the latter when the soil is less resistant and accounts for the deep-seated abscesses seen in indurated acne.

Strenuous efforts have been made recently to isolate a special bacillus, and Gilchrist, of Baltimore, has only this month succeeded in finding definite bacilli, which were present in all smears taken from 240 typical acne lesions, from 86 patients, and which he named bacillus acnes.

However, in my opinion, this special bacillus is possibly our old friend, the staphylococcus epidermidis albus, in a new dress.

The predisposing and exciting causes of rosacea are the same as in acne, except the age, and in addition to the above, special stress should be laid upon the abuse of alcoholic or malt liquors and tea used excessively.

The first consideration in the treatment of acne and rosacea is the diet. It should consist of wholesome food, properly prepared and served at regular intervals. The food should be thoroughly masticated and eaten slowly; a rest of half an hour should follow each meal.
Inquiry should be made into the personal and general hygiene of every patient, the same as would be in order when dealing with any condition where the system is below par. Proper ventilation of sleeping, living and working rooms, together with sufficient out-door exercise, should be insisted upon. A cold sponge bath every morning, followed by vigorous friction from rough towel, will do much toward improving a sluggish circulation. As a rule, cold or tepid water with pure castile soap used once or twice daily on the face is far better than an abundance of soap, hot water, and violent scrubbing, which renders the condition worse in all cases, except where comedones constitute the only lesions. There is no internal treatment for acne, per se, but whatever abnormal condition exists, should be corrected as if no skin lesion was present.

Local Treatment.—Thick oily skins, studded with blackheads, and small papules, should receive vigorous treatment; tincture of green soap with friction and forcible pinching of the skin between the fingers, followed by the application of an ointment, consisting of from one to two drams of borax to the ounce of cold cream, will usually meet all conditions in this stage. It may be necessary to shell off the skin by means of a twenty to thirty per cent. ointment of resorcin. A most useful procedure in all such cases is scraping the face with a sharp- ringed curette. This removes the blackheads or renders their removal easy by means of proper instruments; it also stimulates the cutaneous circulation and promotes absorption, even of deep-seated lesions.

The process of curettage should always be followed by the application of some mild antiseptic to insure against infection of papules and blackheads, whose tops have been scraped away. Many patients will not submit to curettage, and I usually reserve this procedure for obstinate cases of the type above given. The second indication for antiseptic, stimulating, peeling, astringent applications is met in every particular by our compound white lotion, known as Lotio alba comp; the formula and directions for making which are as follows:

| B. Zinc sulphate | ... | dr. i. |
| Potass. sulphuret | ... | , i. |
| Sulphur precip. | ... | , l. |
| Alcohol | ... | ... | q.s. |
| Aq. rose | ... | ... | ad oz. iv |

The zinc and pot. are each to be dissolved in half the quantity of rose water and the potash solution added to zinc solution slowly, with constant stirring; sufficient alcohol is added to the sulphur to make a thin paste and incorporated with solution resulting from above. The bottle should be well shaken and the lotion be thoroughly sopped on the face twice daily. When the stimulation and peeling become too severe, it should be stopped for a while and cold cream or other emollient applied.

Third indication, evacuation of deep-seated abscesses and powerful stimulation of deeply situated nodules.—Incise with small bistoury or finger knife, express contents, apply pure carbolic on tooth-pick and follow by sopping on compound white lotion, double strength. For the deeply situated nodules nothing excels the following:

| B. Potas, carbonat. |
| Sulphur precip. |
| M. Glycerin, equal parts. |

This is very powerful and should be applied only over nodules and never used on delicate skins. Its use will nearly always render incision unnecessary.

It is well to explain to patients that scars, more or less marked, always follow deep-seated abscesses and that the scars result from pustulation and not from incision or other treatment.

(A long discussion followed the reading of this paper. We quote from Dr. Sheffield the following: “I never use the curette or watch-key or any other instrument to remove the
blackheads. I rely mainly upon internal treatment and hot baths, which hasten elimination, and I think in this way we can get rid of the eruption, and the blackheads without much difficulty, provided it is persisted in."

CURRENTS OF HIGH FREQUENCY IN DERMATOLOGY.

Regner (Progrès Med., May 17th, 1902) gives a summary of the employment of currents of high frequency in dermatology. The peculiar property of these currents is that, without producing any appreciable effect of contraction or sensation in muscles and nerves, they modify sensibility, reducing it to anesthesia. They also modify circulation in a manner which has been described as circulatory drainage, which is beneficial in local inflammations with capillary and venous stasis and in cases of impaired nutrition. Pruritus, often rebellious to other forms of treatment is frequently improved by these currents. Psoriasis gives variable results. In eczema, especially weeping eczema, the effects are more constant, the itching sometimes disappearing after the first application. Alopecia, zona, molluscum, contagiousum, acne, and acne rosacea, impetigo, and morphea have been favorably influenced. Lupus erythematosus may be cured by this method, which appears to be more rapid than phototherapy. The effect in cases of tuberculous lupus is a matter of controversy. The author is of opinion that the method may be used as an adjunct to the light treatment. He states that the effect is partly due to the liberation of ozone. He concludes that high frequency currents are a valuable addition to the therapeutics of a certain number of dermatoses. — Modern Medicine, March, 1903.
The China Medical Missionary Journal.

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Editorial.

PRESIDENTS' LETTER.

We have asked our President to write us a more or less regular "letter" expressive of his ideas and plans on behalf of the Society, and we publish in this issue his first gracious response to our request. It embodies some very Neal-ian (synonymous with thorough excellence) ideas on matters of great practical importance. Let no member fail to read the letter in question attentively and act thereon when the times for action shall arrive.

In his personal letter Doctor Neal says:

"Would you feel like renewing the attempt to get statistics of all hospitals and dispensaries in China by sending out blanks with the next and succeeding numbers of the Journal? It seems to me it would be fine if we could get a thoroughly reliable list of all such institutions in China, together with their statistics for some one year, but I fear you will find it a hopeless undertaking to get the two hundred medical missionaries to do such a simple thing as fill out the most simply-constructed sheet of statistics you can invent. I wish that half the medical men would do what they easily can do to support the Journal; the other half we could afford to ignore."

Yes, we do feel inclined to "renew the attempt," and shall do so, making our beginning by issuing a circular in our January issue, when all statistics for the year are supposed to be in. The minute you open that issue (January 1st or thereabouts) please turn your chairs around to face your desks and fill out the enclosed "blank" immediately. You will have your statistics at hand. You will be just as busy any other time. It will only take five minutes by the clock, and it will be a real help to every other medical missionary in China. If you do this thing heartily and promptly you may consider yourselves from thenceforward as having done the square thing at least once by the Society, which means your fellow-workers in the East. But if any one fail, put it off, or forget it, and so do not rise to this small occasion please let that man (or woman) henceforth consider himself a semi-parasitic individual of a feeble and selfish turn of mind, one of what Dr. Neal calls "the other half which we could" but do not wish to have to ignore. Please rise to this small occasion in January. W. H. J.
The China Medical Missionary Journal.

CHINESE HYGIENE, BY ARTHUR STANLEY, M.D.,

HEALTH OFFICER OF SHANGHAI.

The article published under the above title in our issue of April last, although one of the most striking that has appeared in the Journal during the year, was purposely not commented upon editorially until this time that we might note the natural reaction of our thinkers in China to the views expressed therein, and even at this late date we feel some diffidence in speaking critically (never criticizingly) of the views of the most distinguished hygienist in the East. The paper is one of two promised us by Dr. Stanley, the first to express his views on Natural Chinese Hygiene, the second to be a discussion of certain practical methods of dealing with problems involved in the hygienic handling of large masses of Chinese and the improvement of the hygiene of Chinese cities.

We cannot but think, in spite of the general feeling of other medical missionaries in China as suggested in some letters published in "Correspondence" in our last issue, that Dr. Stanley is correct in his views that as far as natural hygiene goes Chinese hygiene is in some important respects superior to that in both the large cities and in the country districts of Europe and America, as noted in, for example, London, Philadelphia, Naples especially, and Italy in general. While in hospital service in Philadelphia we have called for a child with double lobar pneumonia and found the child in a garret room approached by a narrow ladder-like staircase, one of eight people in a room ten by twelve feet, two minute windows nailed down, so that neither of them could be opened or had been opened for an indefinite period of time, the room crowded with old clothes, vermin and other live stock, stale food and urine standing, and the air literally rotten. This, with the open air life of the Chinese is, we believe, never found in China, even in the dirtiest of native cities, and it is but an example of the sort of thing that Dr. Stanley had in mind when he wrote his article and which others as ourselves have often thought of when thinking along these lines and at the same time reviewing our slum experiences in the home land.

As to what scientific hygiene, an altogether different thing from natural hygiene, can do for the Chinese, we shall leave Dr. Stanley to speak for himself. No one in China is more competent to speak or more worth the hearing on this subject than he.
But there are some other questions related to the subject of natural hygiene on which we, and certainly a majority of the medical men who know the Chinese best, are not convinced by Dr. Stanley's expressed views and on which it is hard for us to even see how Dr. Stanley has arrived at his conclusions. We refer chiefly to the subjects of opium smoking and alcoholism, and to prostitution. Drunkenness is less common, except among foreigners, in China than it is at home. But there is a great deal of drunkenness and of chronic alcoholic excess. I think in China we must make this distinction, for alcohol does not affect the Chinese quite as it does the foreigner. A great deal we have seen for ourselves in China. No one who has given much chloroform to the Chinese could fail to notice the frequency of the alcoholic re-action. In Shanghai we expect it in about one in ten to twenty anaesthetizations of men of the coolie or shopkeeper classes. It is in these often as marked as I have ever seen it at home. The first case I ever saw was in the clinic of Dr. J. William White in the University of Penna. hospital—an Irishman who went into a perfect tantrum at about the third or fourth breath of ether. The reaction is characteristic and almost pathognomonic of the alcoholic habitué. We see drunkenness of the "boozy" and blur-eyed type among the young bloods of Shanghai who do much feasting, and are wont to wind up the same with a game of hwah-joen. The pung-dien vocabulary is full of words about drinking to excess and drunkards, and all that pertains thereto.

Dr. Stanley's words on "opium smoking" have been widely differed with. It is perhaps doubtful if a single medical man that has worked among the Chinese and speaks the language well enough to be in close personal touch with the people, would speak so lightly of the evils of "opium smoking" as does Dr. Stanley. If he had said, more nearly equivalent to coffee drinking and cigarette smoking, it would be easier to understand his feeling, but the words "tea drinking and tobacco smoking" seem to picture for us some of the sweetest and happiest hours of the day; dainty tea-tables at 4 p.m., and the un-speakably restful cigar after a day's hard work, and when we try to compare these things to "opium smoking" we see side by side there-with a long dark passage and sprawled on each side a row of sallow-goggle-eyed intemperates, mouths open, eyes closed or vacant, heavy noxious air, poverty, dirt, waterlogged morality.

With this exception Dr. Stanley's words on this subject are chosen with the greatest care and reasonableness, and we should like to have
him confess that "tea drinking and tobacco smoking" was an exaggera-
tion, suggested by the too strong words of the too vehement.

Personally I do not believe that opium smoking is a worse evil in
China than is alcoholism in England or America. Alcoholism gives
the greater number of total wrecks—physical and moral. Opium
smoking gives the far greater proportion of intemperates—moral and
physical.

Prostitution and venereal disease.—We believe that there is more
venereal disease, per capita, in Shanghai than in Philadelphia. Cer-
tainly we have as many cases of venereal disease in our surgical clinic
of 75 out-patients as was the average in the 150 patient clinic
at the hospital in Philadelphia when we served there under Dr.
Gibbon and others, and in type the cases are far the more exaggerated.
The so common word beh-siang indicates the common origin, and
the vocabulary of "prostitution" is one of the most fertile in the
language. There is an alley opposite St. Luke's Hospital and a little
down the street in which a number of prostitutes ply their trade.
Almost any evening they may be seen standing at the arch or prowling
on the street, and if one stands at the open hospital windows after
dark they may be distinctly heard calling out "their prices" as the
coolies pass by—"twenty cents" or "thirty cents" according to the
market, and to judge by appearance business is usually excellent on
Nanzing Road. Similar scenes are as common after nightfall in
Shanghai as mosquitos (to exaggerate slightly), and if we are warranted
in judging by the openness of the practice and the apparent results
we should not hesitate to express the impression that there are more
genuine prostitutes (not second wives) per capita in Shanghai than in
any other city we have ever been in long enough to judge. But appear-
ances may deceive—laws, regulations and public sentiment affect
appearances greatly, and one should have careful statistics before
making definite statements. This much in general we do know, that in
Hongkew prostitution among the lowest classes is very common, and
judging by appearances in the upper Foochow Road districts of Shanghai
it is equally common among the Yeu-dong-dien-kuk. With regard to
interior China, others must speak.

Dr. Stanley is a careful writer, and even those who do not
altogether see things as he does, must weigh his words carefully and
review their "facts" with carefulness.

W. H. J.
BOONE'S POSTURAL TREATMENT OF SELECTED CASES OF HYPERTROPHY OF THE PROSTATE WITH RESIDUAL URINE.

Dr. H. W. Boone, of Shanghai, one of the most experienced surgeons in the East, publishes in the Albany Medical Annals for July, 1903, some exceedingly suggestive thoughts on the treatment of Residual Urine in Chronic Hypertrophic Prostatitis which we quote in full from our contemporary for the benefit of those who do not see the original, both because of the practical character of the method of treatment and because of the special interest which attaches to the original work of every member of our Society in China.

Any suggestions on the treatment of this troublesome condition must be welcome to those of us who are handling, as most us are doing, to a greater or lesser extent, genito-urinary cases, and any suggestions from Dr. Boone should be doubly welcome, for the reason that in everything that he puts before the public, as in the detail of his practice, he is preeminently practical, painstaking, conservative and, in the very best sense, clever, ingenious. In a recent talk with the Doctor he expressed the hope that if his method should be tried by his colleagues in China, he would be glad to hear something by way of results, and we shall be happy to report any such if they are forwarded to us and to give the Doctor the oppportunity to express himself further on this interesting subject.

There is one question we did not put to the Doctor, and that is why he did not publish his article in the Medical Missionary Journal, of which he is one of the founders and of which he was for some time the editor. We take for granted it was due to an impression on his part, apparently shared by not a few of those who owe this Journal everything they write, that we are burdened with an excess of original contributions. The impression, as we pointed out in our last issue, is a mistaken one. We are ready to make the Journal a medical daily instead of a quarterly at any time that the change seems warranted, rather than refuse contributions of such worth as those which come from the experience of Dr. Boone and his professional brethren in the East.

W. H. J.
Postural Treatment in Cases of Hypertrophy of the Prostate with Residual Urine. By H. W. Boone, M.D., Professor of Surgery, St. John's Medical College, Shanghai, China.

W. H., aged 60, June 10, 1902, is a delicate looking man. Complains of pain above pubes and in perineum. He has difficulty in starting urination, the stream is weak, bladder always feels uneasy. At times urinates very often at night, has one small pile. On digital examination by rectum find enlargement of lateral lobes of the prostate. After he had voided his urine, I passed a Condé catheter and drew off nearly three ounces of urine.

I was anxious to find some other method of relieving him which would avoid the necessity of the constant use of the catheter. There was an old bamboo lounge in the room with a hole in the cane bottom, so I placed a vessel under the lounge and told the patient to lie on his face the next time I visited him and try to void his urine into the vessel; he did so, and I then used the catheter and drew off less than one ounce of urine. The next day I got him to lie down in the left latero-prone position and pass his urine. On passing the catheter no more urine could be drawn off, and we found that he could obtain complete relief by using this position whenever he desired to urinate. I saw him from time to time for three weeks longer and he was quite contented; he had no more pain, no uneasy sensations in the bladder and he voided his urine without difficulty. He then went away and I lost sight of him. I have been looking for another patient to try this method of treatment on, but no case has occurred in my practice.

In my case the left latero-prone position gave the greatest relief. In another case the prone position, or that with elevation of the foot of the couch at the same time may be more satisfactory. The position of the patient could be varied until it was discovered what one was the best for his individual case.

Anything which will save a patient from the constant use of the catheter and its accompanying dangers is greatly to be desired, and I hope that the readers of this Journal will try the postural method of treatment when an opportunity arises and report the results of success or failure. If only a small percentage of cases derive relief from this treatment, it is so simple and safe that it is worthy of trial before other methods of treatment are resorted to.

Miss Richmond, in the Spirit of Missions for June, 1903, describes in the most glowing terms the new buildings of St. Elizabeth's Hospital, Shanghai, at the same time speaking feelingly as well as amusingly of the things that are no more. She says: "We think of the old 'women's wards,' with dark passages and unexpected steps up and down; with a few inconvenient foreign rooms here and a few rough Chinese rooms there; with a drug room only equalled for lack of size by the office behind it; with an operating room of which it was once said that when doctor, assistant, patient, and instruments were all there, the windows had to be opened to give room for the doctor's elbows."
PRESIDENT'S LETTER.

At the request of Dr. Jefferys, I am writing the following letter to lay before the China Medical Missionary Association a few matters which seem of timely interest just at the present moment:

First. Medical Statistics.

As this is the last number of the JOURNAL which will reach subscribers before the end of the current year, it seems fitting to call the attention of the members of the Association to the desirability of sending to the editors of the JOURNAL statistics of their work during the past year for publication. It is a melancholy fact that there is not now, and never has been, so far as my knowledge goes, a reliable and full list of all hospitals and dispensaries in China, nor does anyone know what the aggregate attendance at our hospitals has been in any year. An attempt was made in 1900 to collect the statistics of all medical work in the empire, but the results were most disappointing; only forty-three hospitals reporting, though special blanks were sent out, so arranged as to require the minimum of trouble in filling in. If this attempt to collate the returns from all the provinces had been successful it would have formed a valuable basis for comparison with the development during the years succeeding the great Boxer outbreak, when so many hospitals were destroyed.

Most of us, no doubt, keep our records according to the calendar year, and it would seem to require a very small expenditure of time to send a brief note to the editors giving them the figures of our year's work, under such heads as "Total Number of Attendances of Out-patients," dividing this head, if convenient, into "New" and "Old," "Number of Hospital In-patients," "Out-calls," "Major Operations," etc.

Do we not owe it to ourselves, our colleagues, and our supporters to let the world know what we are doing? I am confident that a truthful statement of what is being accomplished from year to year, in the line of medical missionary work in this vast empire, would be most impressive and helpful of every friend to medical missions.

Second. Nomenclature.

It is now over two years since the list of terms adopted by the Association's Committee on Nomenclature in anatomy, physiology, etc., was sent out, and so far there has been, so far as known to the writer,
very little criticism either in the columns of the Journal or in private letters of the work of the committee. It is very desirable that these terms should be criticised very freely by all those who are interested in the training of medical students or the making of medical books. It will also be well if those who are anxious to see the work go on to completion will write to the chairman of the committee, Dr. Whitney, or to Dr. Cousland, the secretary, urging upon them their wishes in the matter. The committee is the servant of the Association, and unless the members of the Association show a real interest in the work the committee is trying to do, there is little encouragement to hurry up matters. It seems eminently desirable that this work in nomenclature should be pushed to a conclusion as speedily as possible, so as to allow of the revision of old editions of existing text-books and to facilitate the issue of new ones. One of the most useful of our present lot of medical text-books is Dr. Kerr's Practice of Medicine, a most excellent book, but one which is greatly in need of revision, as it is now over twenty years old. Who would think now-a-days of studying a book written twenty years ago, and not revised since, and yet how can the book under discussion be revised until the Nomenclature Committee gives the revisers new terms consistent with those already adopted in anatomy and physiology? Another reason for hurrying up the work on nomenclature is that already a new edition of Gray's Anatomy is in press and a new physiology will soon be ready for publication, and unless the terms in practice and surgery are soon ready, so these books can be revised, our students will be placed in the embarrassing position of learning the new terms in these preliminary branches and the old ones in the more practical branches, thereby leading to great confusion.

Thirl. Shall we have a meeting of the Association next year?

As it is already thirteen years since there has been any meeting of the Association it would seem desirable that we should meet some time in the near future, but whether or not we can meet so soon as next year is a question. On page 197 of Vol. XVI of the Journal will be found a short list of subjects which might profitably come up for discussion at a meeting of the Association; those interested will doubtless think of others. The officers of the Association will be very glad to hear from individual members what their wishes in the matter are. If the conferences at Kuling and elsewhere can be made such a success from time to time, surely a general meeting should be quite as
Resolution.

profitable, and would have the authority to accomplish tangible results which the local meetings lack. A meeting of the general association once in five years could surely be arranged and would certainly not be too frequent.

J. B. Neal.

RESOLUTION ENDORSED BY KULING MEDICAL CONFERENCE.

At a meeting of medical missionaries held at Kuling on July 24th, 1903, where the question of hospital construction was discussed, it was unanimously agreed that the editors of the MEDICAL MISSIONARY JOURNAL be asked to endeavor to collect copies of plans, specifications, and cost of every hospital in China, and that such plans be deposited for easy reference in a portfolio to be kept in some convenient place in Shanghai.

It was also suggested that seeing so many medical missionaries now gather annually from great distances at Kuling, in Central China, some arrangements might be made whereby the portfolio is forwarded each season to that place for reference to the many seeking information in hospital erection. It was thought that the Central China M. M. Association would gladly undertake the care of the plans, etc., so long as they remained at Kuling.

Suggestions were also made and heartily supported that the editors of the JOURNAL be asked to publish in each issue one or more ground plans of hospitals already in existence. If a photograph of the completed hospital could also be published, so much the greater would be the usefulness of the JOURNAL to the many newcomers to China.

The above resolution was afterward presented at the Kuling Medical Conference and regularly endorsed.

G. F. DE VOL,

Secretary of Conference.
Correspondence.

SECRETARY’S REPORT OF THE KULING MEDICAL CONFERENCE.

The physicians gathered at Kuling met again this year in medical conference. The sessions, four in number, were held on the 18th, 20th, 21st, and 22nd of August in the Estate house Council room.

Dr. Davenport presided. Dr. De Vol was appointed Secretary for the occasion.

At the first meeting Dr. Woodward presented an able and exceedingly practical paper on the subject of Asepsis and Antisepsis in Mission Hospitals. A free and helpful discussion followed.

Dr. Logan next presented a strong and carefully prepared paper on the Microscope as an Aid to Diagnosis. In the discussion that followed, Dr. Hodge presented a folding instrument made by Baker of London peculiarly adapted for use in China on account of its compactness and simplicity. Both gentlemen were requested to send their paper to the MEDICAL JOURNAL for publication.

The second and third sessions were devoted to the discussion of the desirability and practicability of opening a Union Medical School in Central China, at which the Chinese student may obtain a more thorough and complete knowledge of medicine than is possible in the missionary hospital. Dr. Hodge, by request, gave a short history of the scheme for a Union Medical School.

The question as to what language should be used for teaching the medical student was then regularly taken up by Dr. Hodge. He considered English most desirable to begin with or a combination of English and Chinese with the ultimate view of teaching in Chinese.

Dr. Hart presented the difficult subject of Finance. His plan showed that he believed that a plea for a large and properly equipped school would be received with such favor by both native and foreigner as to guarantee the success of the enterprise.

The most desirable location for the school was next discussed by Dr. Gillison. It was his opinion that, owing to the central position and large number of medical missionaries stationed at Hankow, that city would be the best place for the school. The same speaker also presented a course of study that he deemed advisable for such a school.

At the opening of third session Dr. Davenport pointed out briefly the magnitude of the undertaking and the responsibility that rested upon the conference in considering the plan for a union medical school in Central China. A long and animated discussion followed, in which the difficulties, as well as the advantages of the project, were presented.

Dr. Hodge urged the necessity for immediate action, on the ground firstly of economy, secondly efficiency, and thirdly the opportuneness of the hour.

As to the matter of language Dr. Gillison strongly urged that the Chinese language be used in teaching, pointing out the fact that this would be an incentive to the translation of more medical books into the native tongue.

Finally it was moved by Dr. Hart, seconded by Dr. Hodge, that the general plan for a Union Medical School located at Hankow be endorsed by the conference.
The motion was carried with a single dissenting voice.
The whole matter was then referred to a committee of those especially interested in the movement.
The fourth and last meeting of the conference was devoted to the subject of methods in medical mission work. Dr. Wood took the chair, while Dr. Davenport presented a paper, most instructive and interesting. A free and profitable discussion followed.
By vote of the conference Dr. Davenport was requested to send his paper to the Medical Missionary Journal for publication. A general expression of appreciation of the benefits received from the various discussions of the conference gave rise to a motion that other conference be arranged for next year during the week previous to the ratepayers meeting. The exact date to be fixed later. The motion was unanimously carried.

Finally the following topics were suggested as desirable for consideration at the next conference:

I. Skin Diseases. II. Diseases of the Eye. III. Leprosy. IV. Obstetrical Asepsis. V. Intestinal Disease of Children. VI. Notes on Surgical Cases.

Geo. F. De Vol,
Secretary.

BIRTHS.

July 14th, at Mo-kan-shan, the wife of Doctor M. D. Eubank, A. B. M. U., Huchow, of a son.
August 17th, at Kuling, the wife of Doctor Edgerton H. Hart, M. E. M., Wuhu, of a son.

ARRIVALS.

September 1st, Doctor M. A. Bynon, A. P. M., Shantung.
September 25th, Doctor E. D. Vanderburgh and family, A. P. M., Hainan (returning); Doctor Louise K. Keaton, A. P. M., Peking.

MARRIAGES.

At Shanghai, July 11th, Doctor James Butchart, Lu-cheo-fu, and Miss Nellie Daugherty, of Nanking, both of F. C. M. S.
At Shanghai, September 21st, Doctor W. Kelly, Cumberland P. M., and Miss G. M. Hill, M. P. C. M., both of Chang-teh, Hunan.
At Kiukiang, September 26th, Mr. John Berkin, Kuling, and Doctor Leila L. Doolittle, A. P. M., of Siang-tan, Hunan.
## INDICES TO THE China Medical Missionary Journal.

### Vol. XVIII, 1904.

### INDEX I. GENERAL.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Source</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alden Speare Memorial Hospital The, Yen-ping, China</td>
<td>Original</td>
<td>107</td>
</tr>
<tr>
<td>Anglo-Indian Medical Officer on Opium Smoking in China, An</td>
<td>...</td>
<td>79</td>
</tr>
<tr>
<td>Births, Marriages, Deaths, Arrivals, and Departures</td>
<td>...</td>
<td>42, 105, 157, 182</td>
</tr>
<tr>
<td>Cæsarian Section, A Case of</td>
<td>Original</td>
<td>162</td>
</tr>
<tr>
<td>Chang-loh ...</td>
<td>Hospital Reports</td>
<td>180</td>
</tr>
<tr>
<td>Chang-te-fu, Honan ...</td>
<td>”</td>
<td>98</td>
</tr>
<tr>
<td>Call for a General Meeting, A</td>
<td>Editorial</td>
<td>84</td>
</tr>
<tr>
<td>Chief Aim: Quantity or Quality</td>
<td>”</td>
<td>80</td>
</tr>
<tr>
<td>C. I. M. Hospital, Chang-sha, Hunan</td>
<td>Hospital Reports</td>
<td>156</td>
</tr>
<tr>
<td>Cleansing of Slides and Cover-glasses</td>
<td>Correspondence</td>
<td>142</td>
</tr>
<tr>
<td>City and County; Advantages and Dangers</td>
<td>”</td>
<td>144</td>
</tr>
<tr>
<td>Coming Meeting of the Association, The</td>
<td>Editorial</td>
<td>82</td>
</tr>
<tr>
<td>Dermatology, Progress in</td>
<td>...</td>
<td>28</td>
</tr>
<tr>
<td>Drugs from Japan</td>
<td>Original</td>
<td>131</td>
</tr>
<tr>
<td>Drugs, New and Old...</td>
<td>Editorial</td>
<td>135</td>
</tr>
<tr>
<td>, from Japan</td>
<td>Correspondence</td>
<td>92</td>
</tr>
<tr>
<td>Editorials</td>
<td>...</td>
<td>171</td>
</tr>
<tr>
<td>Election of Officers</td>
<td>Editorial</td>
<td>85</td>
</tr>
<tr>
<td>Essay on Dermoids of the Testis and Scrotum</td>
<td>Original</td>
<td>50</td>
</tr>
<tr>
<td>Established Church of Scotland Medical Mission, Ichang</td>
<td>Hospital Reports</td>
<td>100</td>
</tr>
<tr>
<td>Forgotten Treasure, A</td>
<td>Editorial</td>
<td>139</td>
</tr>
<tr>
<td>Fuh-kien</td>
<td>Hospital Reports</td>
<td>178</td>
</tr>
<tr>
<td>Fuh-ning Medical Mission, 1903</td>
<td>”</td>
<td>191</td>
</tr>
<tr>
<td>General Conference, The</td>
<td>Correspondence</td>
<td>95</td>
</tr>
</tbody>
</table>
INDICES.

General Meeting, The
Hangchow Medical Mission, The
Hernia... ...
Hospital Plans, etc. ...
,, Plan, A ...
,, Discipline in Mission Work
Hiau-kan Leper Asylum, 1903 ...
Hunting Some Little Foxes ...
Hwai-yuen Hospital, 1903 ...
Imperial Maritime Customs Medical Report
"In the Day of Beginnings"
Ing-hok Dispensary and Hospital, 1903 ...
Inherited Syphilis in Hankow ...
Intestinal Parasitism ...
Interesting Case of Multiple Conception, An
Kieh-yang Hospital, A. B. M. U. ...
London Mission Men's Hospital, Hankow...
,, ,, Hospital, Wuchang ...
,, ,, Medical School, Hankow ...
Medical Conference ...
,, Kuling ...
,, Progress ...
,, Missionary Society's Hospital, Canton
,, Statistics of Mission Work in the East
Morrison Society, The ...
Note on Case ...
,, ,, Strangulated Hernia ...
,, or two on Skin Grafting, A ...
New Methodist Episcopal Hospital for Men, Chungking
Newly-founded Chungking Medical Society.
Nomenclature ...
Phrases used by our Patients to express their Symptoms,—The Shanghai of It
Practice of Asepsis in Missionary Hospitals in China.
Plea for the Introduction of the Decimal System into New Medical Books
Prize offered for Scientific Articles by Chinese

EDITORIAL. 137
HOSPITAL REPORTS. 176
CORRESPONDENCE. 96
EDITORIAL. 33
ORIGINAL. 58
HOSPITAL REPORTS. 154
ORIGINAL. 159
HOSPITAL REPORTS. 100
EDITORIAL. 35
HOSPITAL REPORTS. 142
ORIGINAL. 164
CORRESPONDENCE. 94
ORIGINAL. 109
HOSPITAL REPORTS. 155
,, ,, 149
,, ,, 150
,, ,, 156
CORRESPONDENCE. 141
,, 141
,, 71
HOSPITAL REPORTS. 175
EDITORIAL. 32
,, 36
ORIGINAL. 57
,, 13
,, 64
,, 24
CORRESPONDENCE. 41
,, 93
ORIGINAL. 22
,, 1
CORRESPONDENCE. 141
EDITORIAL. 34
INDICES.

President's Letter ... ... ... ... EDITORIAL. 86
Po-na-sang Men's Hospital ... ... ... HOSPITAL REPORTS. 180
Public Health Reports, Shanghai ... ... HOSPITAL REPORTS. 146
Purulia, India Leper Asylum ... ... " " 102
Raynaud's Diseases ... ... ... ORIGINAL. 121
Reconstructed Work, A ... ... ... CORRESPONDENCE. 9
Recipes ... ... ... ... ... " " 142
Record Forms ... ... ... ... ... " " 94
Report of the C. C. M. A. for 1903 ... ... " " 89
St. James' Hospital, Ngankin ... ... ... ... ... ... 133
St. Luke's Hospital, Shanghai ... ... HOSPITAL REPORTS. 38
Self-support Attained ... ... ... CORRESPONDENCE. 173
Shao-wu ... ... ... ... ... ... HOSPITAL REPORTS. 178
Some Methods of Medical Evangelism ... ORIGINAL. 5
Some General Principles in the Medical Treatment of Chinese Skin Diseases ... ... ... ... ... ... ... ... ... 77
Soochow Hospital, The ... ... ... ... ... ... ... ... ... 56
Some Developments of Modern Medicine ... ORIGINAL. 66
Some Recent Advances in Ophthalmology ... " " 43
Some Sequelae of Middle Ear Inflammation ... " " 128
Statistics ... ... ... ... ... EDITORIAL. 82
Staining Specimens ... ... ... ... ... CORRESPONDENCE. 174
Surgical Progress ... ... ... ... ... ... 27, 75, 169
Syphilis (Poem) ... ... ... ... ... ORIGINAL. 12
The Practice of Asepsis in Mission Hospitals in China ... ... " " 1
The New Methodist Episcopal Hospital for Men, Chungking ... ... ... EDITORIAL. 31
To the Men Behind the Guns ... ... ... EDITORIAL. 83
Three Letters ... ... ... ... ... " " 173
Tung-kun Hospital, Rhenish Mission ... HOSPITAL REPORTS. 151
Unhealthy Locality ... ... ... CORRESPONDENCE. 144
What makes " An Outfit ?" ... ... " " 173
What is Happening in Manchuria ? ... ... EDITORIAL. 138
Wesleyan Mission Men's Hospital in Hankow ... ... HOSPITAL REPORTS. 177
Woman's Hospital, Foochow City ... ... " " 179
" Medical Work, Shao-wu ... ... " " 181
INDEX II. AUTHORS.

BEEBE, ROBERT C.
Hunting Some Little Foxes ... ... ... ... ... 159

BLAND-SUTTON, J.
An Essay on Dermoids of the Testis and Scrotum ... ... ... 50

BOONE, H. W
Some General Principles in the Medical Treatment of Chinese ... ... 26

EWAN, R. B.
Syphilitic Gangrene ... ... ... ... ... 68

GRAHAM, ANDREW.
Cases of Mycosis Fungoides, Banti's Disease, and Obliterating Arteritis. 123

HEWETT, J. W.
A Hospital Plan ... ... ... ... ... ... ... 58

HODGE, SYDNEY R.
Some Recent Advances in Ophthalmology ... ... ... ... ... ... 43
Experiences in Abdominal Surgery ... ... ... ... ... ... ... 111
Inherited Syphilis in Hankow ... ... ... ... ... ... ... 164

HILL, LEOPOLD G.
Note on Strangulated Hernia ... ... ... ... ... ... ... 13

JEFFERYS, W. H.
Practical Surgical Notes on the Past Year in St. Luke's, Shanghai... ... 14
Note on Two on Skin Grafting ... ... ... ... ... ... 64
Some Sequelae of Middle Ear Inflammation ... ... ... ... ... ... 128

LINCOLN, C. S. F.
Syphilis (Poem) ... ... ... ... ... ... ... ... 12
Some Developments of Modern Medicine ... ... ... ... ... ... 66

LOGAN, O. T.
A Congenital Deformity ... ... ... ... ... ... ... 131

MAXWELL, JAMES L.
A Case of Cæsarian Section ... ... ... ... ... ... 107
Drugs from Japan ... ... ... ... ... ... ... 131

MCCARTNEY, J. H.
The New Methodist Episcopal Hospital for Men, Chungking ... ... 24

OSGOOD, ELLIOTT I.
Raynaud's Disease ... ... ... ... ... ... ... 121

PARKS, EDNA B.
An Interesting Case of Multiple Conception ... ... ... ... ... 109

SKINNER, J. E.
Alden Speare Memorial Hospital, Yen-ping ... ... ... ... ... 162

STOOKER, GEO. F.
Cases of Mycosis Fungoides, Banti's Disease, and Obliterating Arteritis. 123

TYAU, E. S.
Phrases used by our Patients to express their Symptoms,—The Shanghai of It ... ... ... ... ... ... ... 22

WOODWARD, E. L.
The Practice of Asepsis in Mission Hospitals in China ... ... ... 1

YANG, V. H.
Note on Case ... ... ... ... ... ... ... ... 57

Z.
Hospital Discipline in Mission Work ... ... ... ... ... ... 58
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