cially as this affects the Delta. The work was begun and, in a sense, finished before the English interfered in Egyptian affairs; but it was finished so hastily and so carelessly, to say the least, that it was found to be practically useless. Later Sir Colin Moncrieff took it in hand, and under his care it has been reconstructed. As yet it has not been fully tested, but during the present year great results are expected from it. Gigantic as the works are—they are considered one of the sights of modern Egypt—they are not of course intended to supersede the natural rise and fall of the river, but only to regulate and control these operations in some degree; to store water when necessary, to economize the flood when the rainfall in Abyssinia has proved deficient, or to pass the water away as quickly as possible when the rise is abnormal. The works are in charge of the irrigation department of the government, one of the most useful official bodies in the world, the operations of which extend to all parts of the country, and are the cause of unmixed good.

Following the course of the river upward from Cairo to Assouan, the traveler will note little change in its character, its width, or the speed of its current. At Assouan, however, at the foot of the first cataract, the whole aspect of the Nile changes. There the river widens almost into a lake, the current slackens its pace, and instead of unending and monotonous mud banks, picturesque rocks of granite blackened by time and the action of the water fringe the shores. Gayly painted boats traverse the broad expanse in every direction, while hills bestrewn with boulders and clothed in verdure rise into airy peaks, and form the background of a scene which smacks of the breezy freshness of the Scotch highlands. Assouan is indeed in natural situation the Queen of the Nile. The cataract, a series of rapids, not a fall, lies about three miles above it, the course of the river up to that point presenting a succession of charming prospects. Above the rapids, and about five miles from Assouan, lies the lovely island of Philæ, smiling with fertility and decked with the ruins of temples, which happily combine something of Greek grace—they are chiefly of late Ptolemaic origin—with Egyptian grandeur. There on the borders of Nubia, in the heat of a southern sun, the old worship of Isis lingered latest, and had its priests and priestesses, its ritual and altars, long after Christianity had become the state religion of Egypt and of the Roman empire.

Viewed from a distance, these temples are fair and lovely still. They stand in a spot beautiful almost beyond comparison. Time and nature have dealt tenderly with them, clothing them with flowers and all beautiful plants, hiding the rents in their sides and the havoc which fierce hands long since wrought on their walls. But land, go nearer, cross the silent precincts, walk through the crumbling halls, and the vaults and chambers given up to bats and owls, and not physical decay and noisomeness alone will thrust themselves upon your notice; but a score of things, before, behind, on either side, will point with no uncertain or wavering finger to a moral decay and degradation existing in those who once officiated and worshipped here, which prove, if any proof were needed, that Egypt's ancient faith did not die before its time, and that, dying, it left the world purer and more wholesome.

And perhaps the proof is needed. Time and distance cast a peculiar glamor, as of the setting sun, over the last days of a dying faith. For many the past, and particularly a great past, has itself a charm. There is romance in the final stand of a party, however mistaken and benighted. We all feel this, we all acknowledge it. The more kindly and generous our natures, the more readily we respond to such a claim.

But the claim is baseless, or rather it is founded only on certain instincts more or less chivalrous. For in truth, though good men die, the cause or the faith that is good does not die. Its death is its own conviction, a proof that it was not worthy to live. That this was the case with the old faith of Egypt can be proved by the evidence of any one of the score of temples which still look out upon the Nile.—*Leisure Hour.*

TURPENTINE IN TYPHOID FEVER.

By H. C. WOOD, M.D.*

THE latest and, in its clinical pathology, the best book for a student in the English language upon the practice of medicine is that of Professor Osler. The fact that a man can say, as Professor Osler says, in one of his recent papers, that he has notes upon a thousand post-mortems of phthisis, dictated by himself, shows that he has approached the practice of medicine through pathology rather than through therapeutics, a fact which ought to be borne in mind by every student while reading the sections on therapeutics in Professor Osler's work.

On page 37 of the book, in the discussion of the treatment of typhoid fever, occur the following words: "For tympanites, with a dry tongue, turpentine was extensively used by the older Dublin physicians, and it was introduced into this country by the late George B. Wood. Unfortunately, it is of very little service in the severer cases, which too often resist all treatment. The routine administration of turpentine in all cases of typhoid fever is a useless practice, for the perpetuation of which, in this generation, H. C. Wood is largely responsible." So far as the personal element of this quotation is concerned, if I had belief in its truth, I would be greatly exalted in my own opinion, for how great must that man be who can lead astray without effort a whole generation of the ablest men of this continent! The fact that a book which is probably going to be the text book for American medical students fails properly to explain the right use of turpentine in typhoid fever is a sufficient excuse for the appearance of a brief article upon such an old subject, while the personal statements of the text are warrant for my writing such an article, and also for my detailing a personal experience.

When a young man I had an attack of typhoid fever, and was attended by Doctor (now Professor) Da Costa. During convalescence my recovery was prevented by recurring diarrhoea, with evidences of intestinal indigestion. One day my uncle, the late Professor George B. Wood, then an old man, came to see

me. He said, "Neither thee nor Dr. Da Costa has read my book." I replied, "I have certainly read it." "Thee has not read it to any advantage, then," was the reply, "or thee would know that just in thy condition I prescribe turpentine. The intestinal symptoms are due to ulceration, and turpentine will heal the ulcers." With the consent of Dr. Da Costa, I took turpentine, and the intestinal symptoms rapidly abated. For experimental purposes, the turpentine was stopped, and the intestinal symptoms reappeared, only to disappear again when the turpentine was taken afresh; and so I experimented time and again, until it became perfectly clear that the turpentine had a specific influence upon my intestinal condition. After this its constant administration was followed by steady progress toward health.

This personal anecdote clinically portrays what I believe to be an important practical fact—namely, that when, in the convalescence of typhoid fever, the existence of local intestinal symptoms points toward slowness of healing of the ulcers, turpentine is an invaluable remedy.

The second class of cases in which the value of turpentine has been asserted most positively by hundreds of clinicians of large experience, many of them men of the highest renown as therapeutists, is that in which marked tympanites, with dryness of the tongue, develops in the end of the second week of typhoid fever. Possibly it may be well at this point to quote the exact words of Dr. George B. Wood in his "Practice of Medicine": "But there is a particular condition, and that a not uncommon and sometimes a very dangerous condition, in which I have very often employed it, and hitherto have very seldom known it to fail. In the description of the symptoms, it was stated that, in the latter period of the disease, the tongue, instead of cleaning gradually from the edges and tip, often parts with its fur quickly and in large flakes, generally first from the middle or back part of the surface, which is left smooth and glossy, as if deprived of its papillæ. It was also stated that if, after this process, the tongue remains moist, a slow convalescence may be pretty confidently calculated on. But it not infrequently happens that, during the progress of the cleaning process, or after its completion, the surface of the tongue becomes quite dry, and the process, if not finished, is suspended. At the same time there is generally an increase of the tympanites, and an aggravation, or certainly no abatement, of the other symptoms." Dr. George B. Wood believed that the action of turpentine in these cases was a local one exerted upon the ulcerated surface, and gave good reasons for his belief. I have no doubt myself of the correctness of this theory.

Any one conversant with the literature of the subject must recognize that a great number of clinicians have endeavored in various ways to get in typhoid fever a local action upon the ulcerated surface of the intestines; for example, nitrate of silver has been largely employed and much lauded by Professor Pepper. The difficulty is that it is not possible to get most of these alternative substances in contact with the ulcers; thus, the alkalies of the saliva, the chlorides and organic matter in the stomach, and the alkalies of the intestinal juices must utterly destroy the quarter, or even half, of a grain of nitrate of silver before it can get through even the duodenum. Terebinthines, are, however, slowly absorbed, and are, moreover, volatilized at the temperature of the stomach and intestines. When turpentine is freely and systematically given, it must as turpentine reach the small intestine, and must also fill with its vapors all the intra-intestinal spaces. The effects of terebinthines upon ulceration is well known, and if credit is to be given to laboratory researches, there would seem to be a special relation between the oil of turpentine and the bacillus of typhoid fever. In a work which received the gold medal from the medical faculty of Kiev, Theodore Omelchenko detailed, among other things, the results which he arrived at in experiments with the bacillus of typhoid fever. He found that if the air were saturated with the vapors of turpentine and certain allied substances, the bacillus of the typhoid was destroyed, while a moderate amount of the turpentine vapor was able to arrest the development of the bacillus. It is true that he found certain other substances, especially thymol, more powerful than oil of turpentine; but the question in the past has not been between oil of turpentine and these substances, but as to the value of the oil of turpentine. It may be that in the future thymol will be found more active than turpentine; it is, however, much less volatile than turpentine; and, although volatilized thymol may be more active than the turpentine as a bacillicide, yet under the conditions found in the intestinal tract, the greater volatility of turpentine may make it practically the more efficient in destroying disease germs.

Too much importance must not, however, be attached to these laboratory experiments, which, at best, only afford an explanation of the clinical results. The survival of the use of turpentine in typhoid fever, through more than half a century, in spite of attacks upon it like this of Professor Osler, demonstrates the vitality of the practice, and proves that it cannot be dependent upon the favor or exertions of any one man or group of men.

Believing, as I do, that turpentine acts locally; that in all cases of typhoid fever ulceration exists; that properly administered the drug is incapable of doing harm, I am in the habit of giving toward the close of the second week of typhoid fever turpentine, without looking for special indications, and, as the result of an experience of considerably over a quarter of a century, I believe the practice to be a good one, and that the use of turpentine does distinctly tend to lessen the severity of the local lesions in enteric fever.

In closing this brief paper, may I call attention to the powers of glycerin in disguising the taste of turpentine, and give the following formula:

R. Ol. terebinthinæ, f 3 ii;
Glycerinæ, f 3 i;
Mucil. acaciæ, f 3 iss;
Aquæ menthæ piperitæ, q. s. ad f 3 viii. M.

Sig.—Tablespoonful every four hours during the day. Shake well.—*The Therapeutic Gazette.*

* In his immediate family, Dr. George B. Wood always used the Quaker dialect.

DIPHTHERIA.

QUARANTINE AND DISINFECTION IN LIMITED APARTMENTS.*

By HENRY DWIGHT CHAPIN, M.D., Professor of Diseases of Children at the New York Post-Graduate Medical School and Hospital.

PROBABLY in no other condition of the practice of medicine is the difference between sound theory and actual practice so painfully exemplified and contrasted as in trying to treat a case of diphtheria in tenements and small apartments. The physician may give his orders plainly, but he knows it is impossible to have them carried out with any degree of efficiency. The rooms are probably small and so arranged that one communicates with another in such a way that it is very difficult to isolate any one of them. Still, the greatest isolation possible under the circumstances must be sought, and an end room will serve the purpose best. In many small apartments, the parlor is the only room unoccupied at night, and hence may be selected as the sick room, particularly as it is apt to be large and airy compared with others. The health and even the life of other children must be the argument used in favor of taking the best room for this purpose.

All superfluous articles having been removed, a sheet, wet with some disinfecting solution, may be tacked on the outside of the door. It may be stated at the outset that these few remarks are written more from the practical than from the bacteriological standpoint. While it is not contended that a sheet occasionally so wetted is a germ-proof barrier, it yet serves a purpose in more completely shutting in the sick room, and serving as a sort of danger signal to those without.

If possible, some adult member of the family may act as nurse, in the mean time not mingling with the others. Where the mother has to do all the work, she should have a loose wrapper to draw on in the sick room, discarding it upon her exit. I believe it is better to have the patient upon a cheap cot than can be thoroughly cleansed or destroyed rather than upon a bed or sofa that it will be hard to free of germs.

The room should be kept warm enough to allow a constant supply of fresh air, procured by dropping one of the windows a little from the top. This will not only have a favorable effect upon the patient, by diminishing the chances of his own reinfection, but lessen the risks of the attendant.

Some believe they have seen good effects produced by the constant evaporation from boiling water to which such disinfectants as turpentine, carbolic acid and eucalyptus have been added. This process certainly adds to the agreeableness of the air in the room, and the moisture may not be without benefit to the patient.

While as complete isolation of the infecting agent as possible must be secured, the destruction of the infective virus *at its source* will be necessary in order to secure the benefits of an effective quarantine. The pathogenic micro-organism of diphtheria is now pretty generally recognized as the Klebs-Loeffler bacillus, which exists abundantly in the diphtheritic exudate but is not found in the organs and secretions of the body. As the seat of the diphtheritic exudate is, in the majority of cases, the throat and nose, the problem of the destruction of the infective virus is not so complicated as in some other infective diseases. If, however, this virus is not quickly destroyed at its source, the disease will be spread by its property of adhering tenaciously to many objects with which it is brought in contact. It is hardly necessary to enumerate the clothing, toys and books of the patient, sheets, blankets, and bedding, and various articles of furniture in the room as objects which may quickly and easily become contaminated and perhaps long afterward communicate the disease.

The more the poison of diphtheria is allowed to become diffused, the greater will be the difficulty of controlling the spread of the disease by really efficient disinfection. Diphtheria will prove slightly contagious or widely contagious, according as active means are taken to destroy the virus as much as possible at its source or allow it to become generally diffused. It must be remembered that in diphtheria we are dealing with both an infectious and contagious disease, inasmuch as it is originally caused by the invasion and reproduction of pathogenic microbes within the body, and that such microbes may be communicated from the diseased to a healthy body, starting a fresh attack of the disease *under the common conditions of life*; but that the degrees of this contagiousness or communicability can be influenced by the physician's art, and it is his duty to exert all the influence known to science in such a direction.

The direct contagion from diphtheria is limited to a small area, probably in most cases not more than a few feet from the patient. As the bacilli are situated principally in the superficial parts of the exudate, every effort must be made to disinfect *in situ* and thus destroy the contagium before it has opportunity to infect other bodies. I believe that if more attention were given to careful disinfection of the pseudo-membranes, and less to trying to dissolve or destroy them, the results would be better both for the patient and the other members of the family. To this end, however, no drug must be used in sufficient concentration to be locally irritating. A solution of carbolic acid in lime water, 1 to 200, or corrosive sublimate, 1 to 4,000, employed frequently as a spray or gargle, are valuable applications for the throat. Both may sometimes be safely used in stronger concentration; but, as a rule, it is better to use a weaker solution often. The frequent doses of tinct. ferri chlorid. and glycerin so commonly employed in the constitutional treatment of diphtheria have a valuable local effect in disinfection as well. For the nose, which is highly sensitive, frequent irrigation with boric acid. The solution must always be warm. These disinfecting applications should be made as a rule every two hours, and in bad cases oftener. Much tact will have to be exercised in being as thorough as possible without unduly annoying or exhausting the child.

While these efforts will reduce to a minimum the diffusion of diphtheritic virus, it is impossible entirely to prevent such a spread. They must hence be supplemented by a disinfection of all the objects with which

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