rule, it is best to avoid beer, by which I mean malt liquor of any kind; and to replace the tea, which is often drunk in excess, by cocoa and plenty of milk. Weak cold brandy-and-water may be taken with advantage at dinner in many cases. With regard to beer, several patients have told me that it is their only comfort, and seems to support and warm them; but I believe these feelings of comfort and support are usually dearly purchased by subsequent acidity and flatulence, and I am very hard-hearted and firm in objecting to the use of malt liquor—for a time, at any rate. Most dyspeptics have no appetite for breakfast, and, I conceive, suffer a good deal in consequence from emptiness and flatulence. I have reason to know that taking breakfast for a few mornings, even much against the grain, will eventually create a desire for food at that time of the day; and as it is perhaps the most wholesome meal of any, much comfort will ensue. I need hardly say that heavy suppers are most injurious.

ON THE POPULAR IDEA OF COUNTER-IRRITATION.

By FRANCIS E. ANSTIE, M.D., F.R.C.P.,

ASSISTANT-PHYSICIAN TO THE WESTMINSTER HOSPITAL.

(Read before the Medical Society of London.)

I AM unfortunately circumstanced at present, in one respect. It can rarely happen to an author to have the bread so taken out of his mouth as mine has been by the publication of a very able and lucid paper on the same subject as my own. Many of the ideas, and in some cases even the expressions, which have for a long time past been in my own mind with regard to this matter, are used by Dr. Dickinson in a paper in the newly published "St. George's Hospital Reports." However, the undesigned coincidence is not an unmixed evil, as I shall certainly feel increased confidence in putting forward any argument which is supported by Dr. Dickinson. It may also be possible, perhaps, to make one or two suggestions not contained in his paper, and slightly to modify his verdict in one or two particulars.

There is no subject in practical medicine the consideration of which has been fraught with so much perplexity and even dismay to myself as that of counter-irritation. On the one hand, there appears to be an immense body of evidence in favour of the real utility of this practice; on the other hand, the reasons given for its employment, and the explanations of its action offered by our systematic writers, seem at once incomprehensible, and closely verging on the ridiculous. The common opinion, even among educated practitioners, still seems to be, that anything which hurts the skin is very likely to benefit the deeper tissues, whether these are half an inch distant or placed quite in the centre of the body, and without any intelligible means of communication with the parts to which counter-irritation is applied. Thus, for instance, there is nothing more common than to see blisters applied to the exterior of the chest with a confident expectation of relieving pneumonia seated quite deeply in the tissue of the lung; or to the surface of the abdomen, with the intention of relieving inflammation of the bowels. There is something eminently ludicrous, as I look at it, in the hopes which are thus formed. If, indeed, there were any evidence whatever that the affection produced on the skin could travel by any conceivable route to the part intended to be relieved, we might expect that some effect, though by no means necessarily beneficial, might be produced on the deep-lying disease. But the truth is—and the sooner we confess it to ourselves the better,—that no proof whatever exists that the artificial disease can influence the natural one, either for good or for bad, in a great number of instances in which counter-irritation is used. In fact, the whole leading idea of counter-irritation is a relic of notions belonging to times which were antecedent to the birth of scientific physiology. As Dr. Dickinson very properly points out, they are the direct result of those old theoretical ways of regarding vitality which looked upon disease as an invading demon, which fastened itself with savage grasp upon some portion of the body for which it

had a malignant liking. These morbid demons would seem to have been as silly as they were malicious; for the whole ancient theory of counter-irritation assumed that one had only to shake a red rag in their faces, so to speak, in order to make them quit their prey and seize upon a new object. Or, to use another simile, they were like some voracious shark which might be tempted to leave off gorging upon groundlings, and hooked out of the water altogether by dangling a bit of salt pork on the surface. It is, perhaps, unnecessary to give more than a passing smile to the theories which suggest such an analogy. Nay, more; it will, doubtless, be denied with energy by many who delight to call themselves practical physicians that any such ideas rule their minds when they insist on the value of counter-irritation. If, then, this be not the mode in which our counter-irritants are supposed to act, let us see if there are any other ways in which, consistently with sound physiology, we may suppose them to act beneficially.

Now there are three sets of organs, as Dr. Dickinson very properly points out, which, within certain strict limits, may be supposed to convey *some* influence to parts which lie anatomically at a distance from the part which we irritate. These are—

First, the bloodvessels, which, so far as they establish any direct communication between the surface and the deeper parts which we aim to influence, may effect much, though not always for good. It is, however, only within a very narrow range that this influence can be effective. When we place a blister upon the skin over an inflamed joint, we may, as Dr. Dickinson shows, provoke a serous exudation immediately beneath the skin, which may unload the vessels of the joint of their serum, because these vessels communicate freely with the superficial ones; and the consequence of this may be that the depleted deep vessels may take up the effused fluid from the cavity of the joint. But what possible analogy can we suppose to exist between this case and the action of the bloodvessels when we place a blister on the skin of the chest with the idea of relieving an inflammation of lung-tissue? The fluid which we withdraw from the skin-vessels is by no means similar to the plastic material of hepatisation; and if it were, how can we suppose that there is any vascular communication which could establish an interchange of good offices between the blistered skin and the lung? So, again, in the case of supposed effusion in the ventricles of the brain—what possible ground have we for thinking that unloading the vessels of the scalp of their serum will seriously affect the contents of the cerebral veins, and so cause absorption? Still keeping ourselves to the supposed vascular effects of counter-irritation, we may well ask, with Dr. Dickinson, what safety there is that the effects of this mode of treatment, so often powerless for good, will never be directly hurtful? Supposing, as is very often the case, that the discharge of a blister quickly becomes purulent, then obviously we have no longer anything to hope for in the way of mere relief of vascular engorgement. It may be well for us, if, having excited a process the whole tendency of which is to make the vessels within a very considerable distance extrude their fibrinous contents, we escape the disaster of waxy infiltration.

The second series of organs which really can convey an influence from an irritated surface to distant parts of the body are the nerves. Irritation of a peripheral nerve undoubtedly will often produce effects at long distances. The influence must, of course, travel along the afferent nerve to the nervous centre, and the final effect may be produced either in the centre or in the course of some other nerve which has communications with that centre. So far as these effects have been studied they are very much more often morbid than beneficial. It is quite common, for instance, for a peripheral irritation to produce, in this reflex manner, loss of power in distant muscles, loss of tone in distant vessels—nay, sometimes even serious disease in the nervous centre on which the afferent nerve impinges. Here, however, I confess that I must disagree with Dr. Dickinson in my estimate of the frequency with which beneficial results may be produced by counter-irritation (or rather, as I should call it, stimulation) acting through the channel of the nerves. We shall simplify this question somewhat if, instead of thinking of those inflammations with whose treatment the idea of counter-irritation is most prominently connected in our minds, we take the case of neuralgia, in which the disease is comparatively uncomplicated

with distinct tissue changes. Now there is a mass of evidence of an unexceptionable kind which shows that the influence exerted by blistering in neuralgia is by no means always or usually depressing to nerve functions. On the contrary, where the influence is so applied as to exert a moderate effect upon the stimulated nerve, there can be little doubt that its tendency is to restore functions in the nerve itself, in the nerve-centre, and in other nerves which are centrally connected with it. I can see, therefore, no theoretic objections to the belief that stimulation of the ends of peripheral nerves may sometimes produce reflex effects of a beneficial kind even in inflammatory affections. Only, and this I insist upon, to attempt to secure these benefits without the most precise attention to the physiological relations of the nerves of the irritated part with those of the organ we seek to influence is entirely absurd. For example, there is an affection of which, though it is rare, most persons have seen one or two cases, in which blistering is one of the stock remedies—I mean the severe facial neuralgia which occurs in persons over the middle age. This neuralgia is often attended with secondary inflammations of tissues to which the branches of the painful nerve are distributed. If in this condition counter-irritation be applied either directly to the painful nerve, or, on the other hand, at any indifferent part, the effect is either *nil* or else impairs still further the nerve's functions. But if a blister be applied over the branches of the cervico-occipital nerve at the nape of the neck, a reflex stimulation is produced, the effects of which are often very beneficial, not merely to the pain, but also to the secondary affections; for instance, the spasmodic twitchings cease, the tender and tumid points become less swollen and painful, and the exaggerated secretions from the eye and nostril are reduced. I cannot but suppose that in cases where blisters have seemed really to exercise a powerful influence on inflammations of distant organs, it must have been because a lucky chance applied the irritation to a nerve centrally connected with the nerves of the affected part.

A third class of organs which Dr. Dickinson enumerates, by means of which a real influence doubtless may be exerted on distant organs by an irritated skin surface is the absorbents. And here, as he justly remarks, the action would be altogether bad. The only effect which the absorbents would assist in carrying out is the possible transmission into the system of morbid matters from the wound which we have gratuitously made. I need hardly tell you, in view of the recent experiments on inoculation, that this is no imaginary danger, but, on the contrary, might prove very serious to persons of a certain constitution.

One other method in which a blister can act remains to be discussed; but it is one to which the term counter-irritation is singularly inapplicable. I refer to the direct transmission of the irritant action from the surface irritated to tissues immediately or a very short distance beneath it. Such an action as this is commonly altogether mischievous. For instance, I entertain no doubt whatever that I have seen a mild inflammation of the pericardium or pleura converted into a severe one by too zealous blistering at a critical moment in the early stage. It is highly probable that the same kind of effect is produced on the vessels of the affected part as that which can be seen to occur when we drop mustard or croton oil on the delicate web of a frog's foot—viz., a perfectly paralytic dilatation of the small arteries. A very different effect, however, may, I believe, be produced by the use of the milder irritants (one should rather call them stimulants) just sufficiently near to the inflamed part to exercise a very mild influence upon its bloodvessels. There can be little doubt that here, instead of increasing the tendency to dilatation of the vessels, we add something to their tone, and aid them to maintain that healthy balance which is opposed to the spread of the inflammatory process. So much we may well admit; but why, in the name of all that is reasonable, should such a proceeding be labeled with the special title of counter-irritation? It must be agreed by all that there is no propriety whatever in the term as thus applied. In short—and this is the burden of my paper,—the popular use of the term "counter-irritation" is thoroughly bad. And it is not a mere negative fault; it is a positive mischief. It is in vain that so-called practical men may protest that they simply act upon the facts observed in their experience, so long as they are weighed down with the carcass of a dead theory, which, although they do not know it, still hangs round their necks. It is in vain that

they persuade themselves that they merely apply blisters or setons because they have seen them do good in similar cases; for the similarity is, perhaps, more frequently than not, more than half imaginary, and is assumed, unconsciously, in order to bring the case within the range of the supposed benefits of counter-irritation. And the readiness with which many practitioners conclude that any given case is appropriate for the application of this treatment is evidently due to a lingering love for something like a charm—for something mysterious, or even semi-fabulous, in its operation, as to which one need not inquire too closely, but which is definite and tangible in its outward shape—a weapon ready to the hand of the feeblest, as the smooth stones of the brook were ready to the sling of the stripling David.

ON THE TREATMENT OF SCARLET FEVER.

By CHARLES T. THOMPSON, M.D., M.R.C.P.

A FEW weeks ago Dr. Budd published an able paper on Scarlet Fever, and as he and I obtain similar results, though by different means, I am desirous of submitting a few observations on the subject.

Instead of waiting till the third or fourth day to anoint the patient's body with oil, and to repeat this twice daily, in order to retain *in situ* the infectious excreta from the skin, and after a longer or shorter interval washing this off in a warm bath, my practice is as follows:—

On the very first access of the fever, I put my patient into a warm bath, and repeat this as often as the strength of the patient will allow or the severity of the attack may require. The first effect of this treatment is to produce a soothing and refreshing feeling in the patient, to be followed soon by such an eruption on the surface, of so vivid a colour and in such amount, as would astonish those who have never witnessed it. Thus one of the greatest dangers of this fearful disease—the suppression of the eruption—is escaped.

After the first or second bath the appetite usually returns, so by getting down light and nutritious food the means are afforded of supporting the strength of the patient during one of the most trying periods of the disease. By this treatment the excreta from the skin are removed as rapidly as they are deposited, doing away immediately with the source of infection, leaving no room for the dissemination of the disease. The desquamation of the cuticle is greatly promoted, it being removed in small particles, and never in large pieces.

The drying of the body after the bath is effected by soft linen cloths, sufficiently large to envelop the whole person, and with as little friction as possible; in fact, the surface is what may be called "dabbed" dry, as the excitement from friction of the skin often produces great mischief.

The irritation of internal organs is also at once relieved by this continued determination to the surface. And as the condition of the latter becomes more healthy, the nasal, renal, and alvine secretions, with those of the throat,—in my opinion the most dangerous of all,—are speedily deprived of their noxious properties, and quickly recover a healthy character, thus again removing additional sources of infection.

The fever rapidly subsides, and convalescence usually proceeds more or less quickly, according to the mildness or severity of the attack. Another advantage of this treatment is, that a very serious case is soon reduced to a mild one, and the patient recovers in less than half the usual time.

This practice I have pursued for more than fifteen years, during which period I have attended many cases of scarlet fever; but have never lost a single patient from this disease, nor can I call to mind at this moment any one case in which the infection has been carried from the patient to any other individual. I have had six or seven cases in a family at about one and the same time, the infection clearly traceable to schools, &c.; yet have never known the disease spread to any others in the same household. I have also attended cases where isolation was impossible, or would not be attended to, the patients having free communication with other members of the family, but where the treatment above recommended has been scrupulously carried out, no second case has arisen.