râles throughout both lungs. Has been four weeks in hospital, and improving under ipecacuanha, opium, and senega.

April 8th. To use the lotion, and take the mixture in the usual way.

April 11th. "Lotion relieves the breath."

April 19th. "Going on well"; "the medicine does much good." *The mixture and lotion changed for plain water.*

April 25th. "Still improving on medicine." Ordered compound cascarrilla mixture.

May 6th. Getting better; much improved in all symptoms since admission.

It will be seen that, of the above cases, fourteen were phthisical, and four bronchial. Of the consumptive patients, eight were in the first, two in the second, and four in the third stage of the disease. The four cases of bronchitis were of a chronic kind; three of them being associated with more or less emphysema. Of the patients generally, several had but just been admitted into the hospital; whilst others had already been under treatment, some of them more or less successfully; so that the new remedy was administered under every possible variety of circumstances.

A careful examination of the result is singular and interesting, not so much in reference to the question under consideration, as with respect to other matters medical. I shall, however, first notice the effect of the *excreta*.

Without reference to particular cases, in twelve no effect whatever was produced; no single symptom relieved; and the *excreta* solution appeared to be perfectly inoperative either for good or harm. So innocent was it of any effect, that of these twelve patients, five who had previously been deriving more or less benefit under other treatment, begged that it might be exchanged for their former remedies. In six cases (Nos. II, VII, XII, XV, XVI, XVIII), either the lotion or the mixture was reported by the patients to have done good; three of these found relief only from the *lotion*; but the remaining three thought the *mixture* was more or less beneficial. The three (Nos. II, VII, XVI) who derived benefit from the *lotion*, found no difference in the result when the *excreta* solution was exchanged for plain water; and of the three who spoke in praise of the mixture (Nos. XII, XV, XVIII), two experienced no difference, but went on just as favourably when the same change was made in the mixture; and the third (No. XV) was equally uninfluenced when he unsuspectingly took weak lime water instead of the *excreta*.

With such facts before us, it is impossible to arrive at any other conclusion than that the *excreta* of serpents, in the treatment of phthisis, bronchitis, and emphysema, is a perfectly inert substance.

It would be wrong, however, to dismiss this subject without some remarks upon the six improved cases, since they teach us an important lesson. To what can we attribute the supposed success either of the lotion or mixture? Friction, doubtless, had a great share in the benefit resulting from the lotion; whilst in both, hopefulness, rest, good living, and hospital hygiene, were unquestionably the great agents. Perhaps, most of us are disposed to attribute too much to the action of physic, and too little to the circumstances with which it may be associated. It is so easy to forget that there are no better tonics than confidence and hope, and no physic more effective than good air and proper nourishment.

Sir Benjamin Brodie, in his well-known anti-homœopathy letter, has very justly remarked that "if anyone gave to his patients nothing but distilled water, and enjoined a careful diet and a prudent mode of life, although a great number would perish for want of further help, more would recover." It would seem, indeed, often to matter little whether we go back to earlier days, and give our patients an infusion of pearls, or let them use

metallic tractors, or indulge them with homœopathic globules or serpents' excrement; the remedy needs only to be harmless, and a certain number of them will recover. It is only necessary to look upon this "certain number" as the rule, and, at the same time, either to disregard or overlook the real element in their recovery, in order to believe that in any inert substance—it matters not what it is, so that it be only inert or something approaching it—we have found a great remedy.

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MEDICAL PSYCHOLOGY.

By ROBERT DUNN, F.R.C.S.E.

III. On the Psychological Phenomena or Symptoms of Disease.

[Continued from page 382.]

Sleep. I cannot dismiss the important mental phenomena, in disease, of coma and delirium, without observing how difficult, if not impossible, it is, on the one hand to diagnosticate between natural sleep when profound, and the sleep merging into coma induced by opium and other narcotics; and, on the other hand, to distinguish between the phenomena of true delirium tremens, and certain recognised forms of insanity. As to sleep itself, it may well, as Sir Henry Holland has justly remarked, be called "one of the most wonderful functions of life—a state in which personal consciousness and sense of identity are scarcely maintained; in which memory and reason are equally disturbed; and yet one in which the fancy works variously and boldly, creating images and impressions which are frequently carried forward into waking life, and blend themselves deeply and strongly into every part of our mental existence. It is our familiarity with this great function of our nature which prevents our feeling how vast is the mystery it involves." He advocates the opinion that, in no case whatever of natural sleep, however profound, is consciousness wholly suspended. "It is not an unity of state with which we are dealing under the name of sleep; but a series of fluctuating conditions, of which no two successive moments are, perhaps, strictly alike. And whatever interpretation we may give to this most mysterious phenomenon of life, it seems certain that the state of consciousness, or recollected dreaming, is that which comes into closest connexion with our waking existence. It forms a passage or gradation from one state to the other; an obscure and broken link, it may be, yet belonging to that chain which gives succession and continuity to all the phenomena of our being."

On the psychological phenomena of sleep, though so interesting and curious, as in dreaming, somnambulism, and the vagaries of the imagination, when the controlling influence of the will is suspended, it is not my intention to dwell; but in certain diseases, the character of the sleep affords us an indication of great practical importance, graduating, as it does at times, into coma. In cases, indeed, of moderate compression, from effusion of blood upon the surface of the brain, it often is difficult to recognise any other distinction between sound sleep and coma, beyond that of the duration and persistence of the state; though, from the difference of the inducing cause, other variations must necessarily exist. Dr. Wilson Philip held that no sleep from which we cannot be readily and easily aroused is healthy. Now, it is true, that sleep may be too profound, and merge into coma; but then it may be too light to be refreshing. Its relations to affections of the brain are most important; and in some other functional derangements of the system, and especially in disease of the kidneys, we are aware of the importance and practical value of the indications which it furnishes to us.

As to its proximate cause, the most recent contribu-

tion on this subject is in a valuable essay on the Physiology of Sleep, by my friend Mr. A. E. Durham, read before the meeting at Oxford of the British Association, and published in *Guy's Hospital Reports* for 1860. From some well devised and carefully conducted experiments upon some of the lower animals, Mr. Durham had the opportunity of observing the condition of the cerebral circulation, both in their sleeping and waking states. He has proved to demonstration that venous pressure is not the cause of normal sleep; for during sleep the cerebral veins are not distended, and venous pressure produces other phenomena than those of sleep. His experiments establish the important fact that "there are two distinct normal conditions of the cerebral circulation; the one corresponding to high functional activity in the brain, the other to its repose. The one may be termed the circulation of function; the other, the circulation of nutrition. In the circulation of function, the quantity of the blood is greater, and the rapidity of its motion increased; in the circulation of nutrition, the quantity of the blood, and the rapidity of its motion are both diminished." "During sleep the brain is in a comparatively bloodless condition; and the blood moves through the encephalic vessels with diminished rapidity. This condition, from physical causes, is the one most favourable to the nutrition of brain-tissue; and, on the other hand, the condition which prevails during waking, and associated with mental activity, is that which is most favourable to the oxidation of the brain-substance, and to various changes in its chemical constitution." He maintains that oxidation of the brain-substance is concomitant with, and directly proportionate to, the development of the cerebral activity. To the important question, "what is the proximate cause of the temporary suspension of cerebral activity which follows each period of healthy mental exercise?" he suggests, in reply, the recognised analogical fact, that the products of chemical action interfere with the continuance of the action by which they are produced.

Sleep is the period of the brain's repose, giving opportunity for the nutrition of the brain-substance, as well as for the nutrition of other parts of the bodily system.

Upwards of forty years ago, Dr. Carmichael of Dublin published in *Tillock's Philosophical Magazine* a valuable essay on Dreaming, including conjectures on the proximate cause of sleep, which is well worthy of a careful consideration. He says truly: "We cannot reflect on the nature of sleep, without being satisfied that it involves some important vital process, so indispensable as to be of daily occurrence, and of such general influence as to engage every part of the frame, but particularly the organs of thinking, sensation, and voluntary motion. If we ask ourselves, what process is of prime necessity to these organs, we can answer without difficulty, that which repairs their waste, and preserves their consistence and vigour—the process of assimilation. Whatever may be the result of its operation in the bones and muscles, and the other coarser parts of the body, we can scarcely reflect on its action upon the delicate texture of the brain and nerves, without perceiving that it must be accompanied by powerful and overwhelming effects. These are the fragile instruments of thought, feeling, and motion; and no wonder, that a change which affects these very structures should be attended with a cessation of their functions, and the actual paralysis of sleep. We may clearly comprehend the different, yet strangely analogous, modes of action of vegetable poisons, intense cold, external injuries, and the assimilating process on the brain. They all render it comatose, torpid, and paralysed; but none of them, except the last, are endowed with any but destructive powers. The assimilating process alone can renovate and restore the drained and exhausted organ; and even though the effect of its activity is to sink us in stupefac-

tion, that very stupefaction is natural, refreshing, and vivifying sleep." (*Tillock's Philosophical Magazine* for 1829, p. 257, vol. liv.)

[To be continued.]

British Medical Journal.

SATURDAY, MAY 17TH, 1862.

THE ELECTION OF COUNCILLORS BY THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

BLACKSTONE, or some other high authority, tells us that the law is the perfection of common sense. If this be the case, we may safely affirm that the rule followed in the election of Councillors of the Royal College of Surgeons of England is utterly illegal; for truly it would be hard to find a rule more contrary to reason, contrary to common sense, and contrary to justice. It is difficult, indeed, to understand how such a scheme could have ever entered into the mind of man to conceive. When we note it in operation—try it by its fruits—we are forced to conclude, either that it was adopted for the purpose of making popular elections absurd, or that it is a very unfortunate product of the notoriously unbusinesslike projects of medical men. Be this as it may, it is high time the College authorities took due steps to relieve themselves from the odium which must of necessity attach to such a mode of election. As long as the re-election of the retiring Councillors was a matter of course, the thing might pass muster; but if the election of Councillors is in future to be a solemn and actual fact, then it is evident that a mode of election which opens the door to unseemly manœuvring, and to the worst of all kinds of manœuvring—viz., through the mouth of the ballot-box—cannot be accepted as legitimate. We will not for one moment admit the explanation that such an election is the only one the charter or bye-laws permit. No charter or bye-laws of a great royal corporation can creditably sanction such a gross injury to the corporation as is involved therein. Injury cannot shelter itself under legality. As we said last year, when speaking of this matter, there ought to be no opportunity for the indulgence of their propensities, and the exercise of their talents, by scheming men, in such a solemn business as this. The Fellows ought to meet together like men of conscience and honour, and of sufficient knowledge, and vote accordingly. The men for whom they record their votes should require no private puffing, nor underhand recommending, nor mysterious anticipatory meetings, to carry their elections. But the fact is, as matters now stand, a premium—the premium of success—is set upon such manœuvring, in-