

yellow book-cover—then yellow silk is employed. To sew down the thread with red silk gives a rich glowing effect; soft, bluish-green silk, on the contrary, produces a cool, quiet tone. Silk cord for outlining is greatly in vogue. A simple twisted cord is mostly used, but I see now signs of more fanciful ones becoming popular.

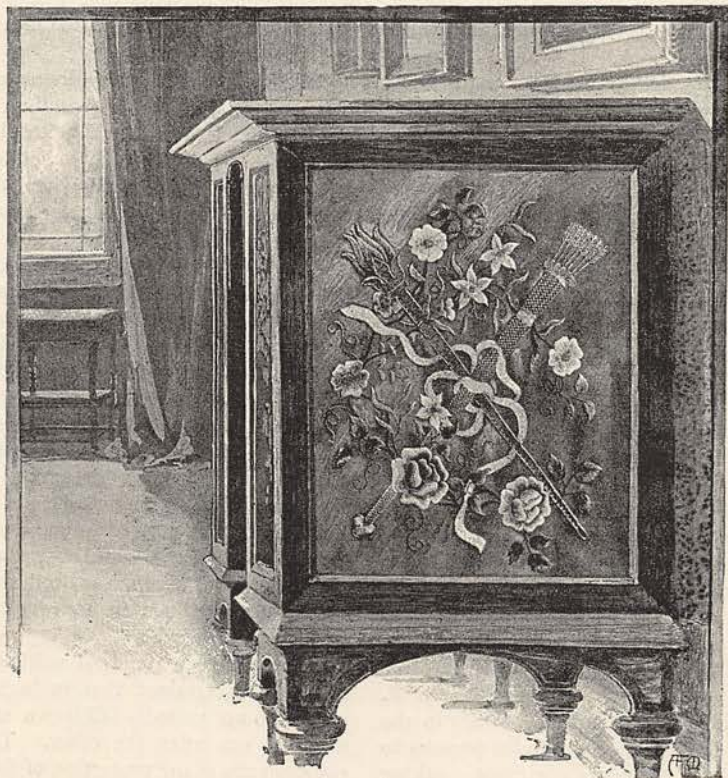
I do not find couching is so much used as it was some time back, but it is very suitable for outlining portière and couvrette decorations. The edges of many articles are now cut out rococo-fashion. Afternoon tea-cloths look very well when so treated, and worked with coloured washing-silks and gold thread. D'oyleys, duchess toilet-table slips, side-board cloths, and table centres, may all be finished in this way. The edges must be

overcast to make them strong. Darned grounds are effective for cushions. Take a bold design of thistles, for example. The leaves and the one big centre thistle will be done in green crewels, with the exception of the top of the thistle, which will be put in with mauve crewels. The whole of the

ground, which is of white linen, will be lightly darned. Some grounds are closely darned, and the design left plain, except for the veining of leaves, and perhaps a little shading of petals; the centres of flowers, however, are generally worked rather more elaborately. Much of the embroidery nowadays has

intricate and varied point-lace stitches introduced; these require careful execution, for we often find ourselves comparing them with the originals, and that is a severe test for embroiderers.

Our space will not permit of my saying much on the subject of drawn linen work. It is one of the most fashionable decorations for table linen and toilet sets. Ladies are practising it now, and articles can be had with the threads ready



EMBROIDERED PANEL (FRENCH SCHOOL).

drawn, so that they escape the monotonous part of the work. Cross-stitch patterns are to be had traced, to obviate the necessity of counting stitches. This is one of the latest inventions for saving trouble, in answer to the demands of this luxurious age.

## SLEEP AND DREAMS.\*

IN TWO PARTS.—PART I.



THE subject of dreams is one which admits of being treated in a sketchy and entertaining way, and is not always handled with the seriousness which it deserves. I hope I may succeed, in the present paper, in being philosophical without being dull; and shall relate curious dreams only to extract meaning

\* The author is alone responsible for the statements in this paper.—Ed. C. M.

from them. As I wish to say what is true about dreams, I shall be obliged to repeat many things which have been said by others; but, unless I had something new and original to say, I should not be writing a paper at this time. I shall not only have to combat some popular notions, such as (1) that we dream all night long; (2) that common dreams are more mysterious than our waking thoughts; and (3) that the mind during sleep is peculiarly fitted to receive

revelations; but I shall venture to call in question the conclusion of philosophical writers that lengthy dreams only occupy a moment of time, and I shall maintain, contrary to one writer at least, that dreams, when truthfully related, may reveal something of the dreamer's moral character.

The evidence which I shall offer of these things will be the record of my personal experience. I am not a continual dreamer, but for years past, when I have remembered a dream with any distinctness, I have recorded it in a note-book. It is not a laborious task, for I find that I scarcely ever remember more than fragments of dreams—if, indeed, more than fragments occur. I fancy that few dreams have a deliberate and definite beginning, though many have a definite and dramatic ending. In Lady Burton's "Inner Life of Syria," one dream is related through fifty pages; but my dreams are short. They are without beginning and without ending; nevertheless, they are more instructive to me than the fullest records of the dreams of other people, because I can trace more certainly the causes and elements, and I can perceive more accurately the actual processes of the mind. What is wanted for the study of dreams is not so much a collection of premonitory and remarkable dreams, as a very accurate transcript of dreams of the ordinary kind.

Sir W. Hamilton argued, from the phenomena of dreaming, that our consciousness during sleep is continuous; and it has been maintained, from *à priori* reasons, that, unless we are dreaming every night, and all night long, we have no proof of the soul's existence. But most writers now agree in the opinion of Lord Brougham that "we only dream during the instant of transition into or out of sleep."\* Sir B. Brodie thinks we have evidence to the contrary in the fact that nothing is more common than for persons to moan, and even talk, in their sleep without awaking from it.† But this talking surely implies semi-wakefulness, and may come under the definition of transition between sleeping and waking.

I have often watched myself going to sleep. It can be done, because the process of "going off" is not a uniform sinking into unconsciousness deeper and deeper, but is broken by relapses of wakefulness. You dream for a second, and then wake for a second, and dream again. If you are intent on watching the process, you will find it possible, in the moment of wakefulness, to reflect on the momentary dream and to say to yourself, "I was nearly off then!"

When my brain *will* be busy thinking, I find I can get off to sleep by trying to count up to 100. I seldom succeed in reaching the 100, but sink right away somewhere between 20 and 70. Watching the process, I observe two things: first, there comes a difficulty in the mental utterance of the numbers—repeated attempts and failures to inwardly say "35" or "67." Then I know that I am on the point of losing consciousness. Secondly, I sometimes find that, instead of counting, I have been mentally saying

something else—have entertained some word and some thought which came unbidden—that is to say, I have had a momentary dream. One night, whilst counting, I seemed to be moving towards a partially open door, and then to pass out, *saying* to myself, "Into the open air," and *thinking* to myself, "I may feel it chill."

After passing through this experience, I had the wakeful consciousness that I *had* passed through it (the experience), and then I resumed my counting, and fell asleep.

So I know that we may dream when falling asleep, and everybody knows that he may dream when waking up. It is to be doubted if we ever do more than this: we can dream on either border of sleep, but not during sleep itself, when sleep is sound and thorough. Of course, we may have a restless night, and then we may dream repeatedly through the night, and moan and talk, but that is because our sleep is not sound—because the brain is not entirely at rest. The fact that we forget some dreams is no ground for saying that we dream always and do not remember.

Physiology requires us to believe that in dreams the brain is more or less active. It appears equally clear that if the brain be functionally at rest—complete rest—there can be no dreaming. The curious phenomena of ordinary dreaming may be reasonably explained if we assume that in falling asleep, in waking, and during disturbed sleep, some parts of the brain are active while others are at rest. There are degrees of sleep, as Brodie says himself. The case is very well put in an essay on "Spectral Illusions" in *Chambers's Miscellany*:—

"According to the best writers on the subject, it has been ascertained that, in beginning to sleep, the senses do not unitedly fall into a state of slumber, but drop off one after the other. The sight ceases, in consequence of the protection of the eyelids, to receive impressions first, while all the other senses preserve their sensibility entire. The sense of taste is the next which loses its susceptibility to impressions, and then the sense of smelling. The hearing is next in order, and last of all comes the sense of touch. Furthermore, the senses are thought to sleep with different degrees of profoundness. The sense of touch sleeps the most lightly, and is the most easily awakened; the next easiest is the hearing; the next is the sight; and the taste and smelling awake the last. Another remarkable circumstance deserves notice: certain muscles and parts of the body begin to sleep before others. Sleep commences at the extremities, beginning with the feet and legs, and creeping towards the centre of nervous action. The necessity for keeping the feet warm and perfectly still, as a preliminary of sleep, is well known. From these explanations it will not appear surprising that, with one or more of the senses, and perhaps also one or more parts of the body, imperfectly asleep, there should be at the same time an imperfect kind of mental action, which produces the phenomenon of dreaming."

We may further be assisted to a comprehension of dreaming if we remember what occurs in the case of

\* "Discourse of Natural Theology," chap. v.

† "Psychological Inquiries," vol. ii., p. 151.

persons who sustain injuries of the brain, or whose brains are purposely hypnotised : some faculties may be paralysed, while others continue to act ; and this rupture of their working relations leads to a broken and dream-like existence. A French sergeant, whose case is reported by Dr. Mesnet, was wounded by a ball on the left side of the head, and became paralysed down the right side of the body. For some time he was subject to periodical aberrations of intellect. He heard not ; he rarely saw ; he swallowed food without distinguishing its taste ; he gave no sign of pain when pins were run into his body ; but he would go wherever he was directed, and if he stumbled, would feel about for the obstruction, and pass on one side. When placed in a position that suggested it, he went through the movements of reconnoitring or skirmishing in an enemy's country ; and when his tobacco pouch was placed in his hand, he made a cigarette. Such cases as this show that parts of the brain may act automatically while others are in abeyance. The abeyance may be through injury, or may be brought about by a process of mesmerising ; but why may it not also occur in slumber ?

If this be so, and dreams result from the partial wakefulness and partial slumber of the brain, we should expect the mental operations to fall short of the performances of the same brain in full waking life, and not look for any exaltation of the imagination or the reasoning power in dreams, much less for revelations transcending the reach of human thought—at least, not in ordinary dreams.

With these preliminaries I proceed to show that the operations of the mind in dreams are usually parallel to its operations when awake, only that they are broken and imperfect. I make no attempt now to give a full and accurate account of the laws and phenomena of mind, but only endeavour to show that dreams present the waking phenomena with some omissions, which cause the results to be curious and amusing.

To begin with the *materials* of our dreams. It has been established by Locke and others that "there is *nothing in the intellect which was not first in the senses* : " the mind is conscious of sensations of sight, sound, taste, &c., and of ideas suggested by these, and is conscious of nothing else. It perceives what strikes the senses, it can recall the sensations in a faint way by recollection ; it may recombine them in new forms by imagination ; it may reason upon their relations ; but in all its operations it is like an architect or a builder, who can only use the materials supplied to him or recombine the elements of design, and cannot create materials out of nothing. A blind person, being without any sensations of light and colour, can never imagine the colours themselves, much less design new combinations of them in a painting. We have all heard of the blind man mentioned by Locke, who tried to get a true notion of the colour scarlet, and then said it was like the sound of a trumpet. Well, the blind person is no better off in his dreams. No shapes of beauty can appear to his mental vision—in fact, he *has* no mental *vision*, but depends upon

the sense of touch as his chief agent and helper. On this point we have the testimony of the Rev. B. G. Johns, formerly Chaplain of the Blind School, St. George's Fields : \*—"I dream," said a blind boy ; "I often dream about people ; I dream of my brother (also blind) ; I know he is with me, I hear his voice ; I am in the places where we used to go before he died."

"But how do you know that you are in a certain place ?"

"The impression of the place is with me—I feel I am there ; *I am sure* I am, sometimes, till I awake. Sometimes I dream that I am walking in the fields, I tread on the grass, I smell the fresh air."

"If I dream," said another young man, "that I am in the great basket shop, I know I am there by the size of the room—the length of it."

"But how can you judge as to the size or length of what you cannot see ?"

"Oh, the sound tells me pretty well ; I am in my own old place, where I work."

"You sit on your box, then ?"

"Yes, I touch it, and if the dream goes on, I get my tools out."

Since, then, the blind cannot dream of sights which they have had no sensation of, we may safely conclude that we only dream of things which we have in some way perceived, or, at any rate, are confined to such materials for the foundation of our dream fabrics.

The materials of dreams may be enumerated as memories of waking sensations, memories of waking thoughts, and new sensations received in sleep, whether from without or from within. Dr. Gregory mentions of himself that having on one occasion gone to bed with a bottle of hot water at his feet, he dreamed of walking up the crater of Mount Etna and feeling the ground warm under him. He had at an early period of his life visited Mount Vesuvius, and actually felt a strong sensation of warmth in his feet when walking up the side of the crater, and he had more recently read Brydone's description of Mount Etna. On another occasion, having thrown off the bedclothes in his sleep, he dreamed of spending a winter at Hudson's Bay and of suffering distress from the intense frost. He had been reading, a few days before, a very particular account of the state of the Colonies during winter. Dr. Reid had a blister applied to his head, and the plaster which was put on afterwards causing excessive pain, he dreamed of falling into the hands of Indians and being scalped. A whisper in the ear is sufficient to produce a dream, and it is related of a certain officer that his companions in this way conducted him through the whole process of a quarrel, which ended in a duel, and when the parties were supposed to meet, a pistol was put into his hand, which he fired, and was awakened by the report.

In 1875—when Mr. George Smith of the British Museum was yet alive—I had a dream of the simplest possible character, which merely took several waking thoughts of the day and combined them into a new

\* "Blind People: their Works and Ways." By the Rev. B. G. Johns, M.A. Murray, Albemarle Street, 1867.

form. My hostess in London was a cousin, Mrs. T., and we had been to Sydenham to visit the D.'s, who were related to us. While at Sydenham I mentioned George Smith's letter in the *Daily Telegraph* (Jan. 9, 1875) relating to the Nineveh discoveries. In returning to town we passed New Cross; conversation turned upon crosses, and Mrs. T. said that Charing Cross was so named from Queen Eleanor, the dear queen (*chère reine*) of Edward I., who died at Herdielie, near Lincoln, and was buried at Westminster. In every town where the corpse rested the king caused a cross to be erected in remembrance of her. That night I dreamed that Mr. George Smith was going to carry the banner of Queen Eleanor from Lincoln to London, resting at all the stages.

John Bunyan had dreams which evidently reflected his waking thoughts and fears, for it may safely be said that the visions of his head upon his bed would not have horrified him with flames and globes of fire in which men were tossed up and down while devils laughed at their torments, unless a materialistic conception of hell had possessed his mind when awake. Further, it should be mentioned that any derangement of the bodily functions, especially of the digestion, will be likely to affect the nerves and disturb the brain just as surely as unpleasant sensations from without. Hunger is another internal sensation sufficient to set the slumbering fancy at work, as says Milton of the famished Son of God in the desert—He dreamed

—“as appetite is wont to dream  
Of meats and drinks, Nature's refreshment sweet.”\*

Dreams present us so often with scenes and events which the eye has seen, or might see, that they are called *visions* of the night. The eye plays this important part, I suppose, from two circumstances: one is that we generally remember what the eye has seen better than we remember the impressions of the other senses; the second is that the retina is so delicate a piece of nerve-work that it is probably always a little agitated. In falling asleep we often commence by seeming to see things—now one shape and then another. It is difficult to go to sleep with a light upon the eyes, because the light penetrates the closed lids, agitates the retina, and transmits impressions to the brain. Eyes which have been busy and overworked may fail to sink into utter rest with the closing of the lids; and any motion that remains in them may, as I conceive, travel to the brain and originate a dream. Conversely, the brain, when disturbed in its optic centre, may set the retina in motion and then mistake its pictures for real visibles. It so mistakes them because the eye is not looking out upon any real objects which these fancied ones might be compared with.

That pictures are actually formed upon the retina in dreams seems to be proved by the dream-forms remaining sometimes after we wake, and open our eyes. Sir B. Brodie tells us of a friend who, on awaking in the morning, perceived what seemed to be a human

figure in a sort of Persian dress, standing at the foot of the bed. It was as distinct as the chairs and tables in the room, yet, looking steadfastly at it, he observed that the door behind it was plainly to be seen also, and presently the figure disappeared. Considering the matter afterwards, he recollected that he had had a dream, in which the Persian figure had played a conspicuous part.

So much for what I term retinal suggestion. It will serve to make plainer what I mean by lip suggestion. If we observe ourselves, we shall find that the organs of speech are not absolutely quiescent when they seem to be at rest. When we read to ourselves, without opening our lips, we go over the words mentally, and we do more, we go over them with the organs of speech and may trace a sort of internal utterance. This scarcely observable manifestation I take to be the upper surface of an underlying physiological fact, the fact being that the organs of speech are in slight movement, an initial condition of what might easily become speech. To show that lip memory is different from conscious mind memory, I may mention what occurred to me one day at Derby railway station. I had got out of the train, and presently found my lips silently repeating the syllables “twelve twenty-three.” To know what this signified I had to cast about and recollect. Had the guard said that the train would go forward at 12.23? No, he only said it would wait here fifteen minutes. What else then?—oh, I have it: the number on my carriage was 1223, and I had looked at it with a view to remember it. In a similar way, after waking up one morning, looking at my watch and reflecting that it was time to rise, I noticed that I was silently running over the words “and for this reason,” and I was able to recall that they were the last words of a dream.

We may observe in ourselves that the ghosts of words and phrases flit over the tongue just as fancy images flit over the retina. Fancy brings across the tongue recollected words and phrases, and from their suggestion invents new ones. In falling asleep I can trace them, just as I can trace the apparition of visual impressions, and I think it probable that in a dream these words would seem to be actually spoken. Then also, since the words convey meaning, and suggest things by association, the course of a dream may be determined by them, though they originate spontaneously in the nervous irritability of the tongue. For instance, in the following fragment of a dream the first thing that I remember is that I was mentally saying, or else seeming to hear and to repeat after another, the un-English word *worsdy*. A young woman was present to my vision, and I said, “She is asking about the *words* (of something).” The initial consonant of *worsdy* appeared to be sounded indistinctly, and now I thought I heard better, and that it was *mersdi* the young woman was saying. “Oh! *merci*,” I thought—the French word for “thanks”—yet immediately I connected her meaning with Sisters of Mercy, and imagined she was signifying her dislike of them. I remarked, “She will probably become a convert to them.” Immediately I saw her protesting that she

\* See the thought worked out in *Essays* by Elia, “Grace before Meat.”

would not, and yet, advancing towards the priest, she fell on her knees and confessed herself conquered. All this dream, from the un-English word *worsdy* flitting over my tongue!

Miss Cobbe relates an affecting dream in which a lady who had been pondering on the many duties which "bound her to life," as the phrase is, found the phrase enacted in allegory: Life coming, as a strong, calm, cruel woman, and binding her limbs with steel fetters, while Death, as an angel of mercy, hung hovering in the distance, unable to approach or deliver her.\*

When we talk with others in our dreams, it is our own mind that supplies both parts of the conversation.

Dr. Johnson related that he had once in a dream a contest of wit with some other person, and that he was very much mortified by imagining that his opponent had the better of him. But he clearly understood, when he woke up, that all the wit had been furnished from his own resources. In actual life we often anticipate what an opponent or a friend is going to say; and sometimes when he hesitates for a word we supply it. In dreams our anticipation of what is likely to be said is immediately regarded as something which has been said, because there is no reality of sound or sight to compare it with and show its shadowy character. Sir B. Brodie remarks that a

\* *Macmillan's Magazine*, April, 1871, p. 515.

drama may be performed in our dreams, with other actors in it, who seem to speak and act independently of ourselves, as if influenced by other motives and aiming at other objects, with regard to which we do not concur, or to which we may be actually opposed. He searches in vain for a satisfactory explanation.† But perhaps if he had given us instances, instead of stating a difficulty in general terms, the instances might have been explained. When I lived in London (August 12th, 1874), I dreamed that I saw a woman, a next-door neighbour, squeeze a baby's head flat, and roughly double it under. I felt a shudder, and I remonstrated with her. She then left the head free, and it expanded to its proper dimensions like an air-ball after being squeezed. The woman then said something to the effect that such treatment did not hurt a baby, and (as proof that the infant was soothed by the treatment) she added that it was quieter now. But I had noticed in my dream that the babe's head was crushed. I had inferred that the brain was injured, and had observed that the babe was, in consequence, made quiet, and *then* it was that I heard the nurse say, "It is quieter now." And thus, probably, in every case, in dreams, our interlocutor's words, and the words of every actor, are traceable to our own thought, or to our own lip suggestion.

† "Psychological Inquiries," vol. I., p. 157.

## THAT BLACK LACE BONNET.

A STORY IN ONE CHAPTER.



THINK as we are here, dear, we may as well buy a bonnet."

Cause and effect have been the subject of the deepest philosophical inquiry, but woman, with her ready wit, can illustrate the theory without a moment's hesitation—cause, the propinquity of bonnets; effect, the purchase of the same!

And if this is true of an ordinary occasion, what must it not be when, as in the present case, vast vistas of bonnets surround one, stretching away on all sides into dim distant possibilities, vague and enchanting as a wizard's cave? Bonnets of every colour and shade, bonnets of every shape and description, bonnets with every trimming and decoration, bonnets for young and old, for high and low, to suit every taste and every purse!

It was little wonder that the above exclamation broke from the impassioned lips of Mrs. Aubrey, as she and her friend gazed around the beautiful show-rooms of the Magasins du Louvre.

"But neither of us wants a bonnet," objected Miss Walton, in a faint tone of remonstrance.

A critic of the sterner sex would probably have remarked at this point, "Then why are you here?" But there was no one to criticise, and Mrs. Aubrey was troubled by no impertinent comments.

"Nonsense, Hester!" she said rather sharply, "it would be absurd to lose such a chance as this; we may never have the opportunity again."

"But if we don't want it, it will be no use," said Miss Walton with the same mild air of protest.

"Then we can sell it to somebody else," said Mrs. Aubrey promptly, and the opposition was effectually silenced.

The work of choosing is always difficult, but on the present occasion, partly owing to the infinite variety which did indeed seem calculated to suit every taste, and partly owing to the ready quickness of the saleswoman, a bonnet was quickly chosen; a black lace bonnet, quiet, stylish, thoroughly finished, neat, and yet pretty, and only twenty francs. What human being could wish for more?

"That is what I call a really good bargain!" said Mrs. Aubrey in a tone of self-complacency, when, having left directions for the bonnet to be sent after them, they were returning to their hotel.

"Yes," said her cousin, "we could not possibly have bought such a bonnet for that price in England."

She did not speak very heartily, but Mrs. Aubrey took no notice; she knew that, now the purchase was really concluded, Miss Walton could not long resist the seductions of that entrancing manufacture of black lace! She said no more about it for the present, but

anxious. He had not mangled any potentate. He hurried to the pump to wash himself, knocking over, and leaving, the little guillotine by the way, and in a few minutes was rattling along in a little cart to the town to fetch the doctor, and get a new fairy tale book at the bookstall.

Next day Mrs. Ablett showed me Ablett's pets. Up in an apple-tree sat a thrush which always partook of breakfast on Ablett's shoulder; there was a young hedgehog that the shoemaker had saved from a game-keeper, and that *would* climb up inside the legs of his rescuer's trousers; in the workshop was a blue-tit whose amusements consisted of hanging on underneath Ablett's beard and the lobes of his ears and his back hair, and flying away to the roof with his needles and thread; there was the dreadful mongrel dog, which refused to look at anyone else when his master

was near; and there was a tame toad in the garden, and other things.

"I do believe Ablett would go clean out of his mind," said Mrs. A., "if anything was to happen to 'em."

Three mornings after that there was an atmosphere of something having gone wrong in the cottage. The shoemaker's voice was not to be heard, and his wife was even quieter than usual, and when I went into the little shop, there was Ablett the Terrible leaning over the bench, and in his hand was the body of a very small bird, the feathers of the neck stained with blood, and on the body was a bright tear. Close by stood the guillotine, with the knife down, and a little speck of blood on that; and the socialist shoemaker turned his face away, and pretended to be looking out of window. The blue-tit had touched the spring of the toy guillotine and executed itself.

J. F. SULLIVAN.

## SLEEP AND DREAMS.\*

IN TWO PARTS.—PART II.



N showing that the ultimate materials of dreams are ideas of sensation, the same as the materials of our waking imagination, I have incidentally illustrated the second point of similarity, which is this—namely, that our thoughts succeed one another according to the law of association of ideas. When our thoughts run on, in meditation or reverie, they are found to be connected in groups or linked in a chain, each new-comer having some association with its predecessor, either through natural similarity or previous companionship in our experience. The same rule is observed in our dreams, however rambling and inconsequent they may seem to be. Voltaire observes that he has known advocates who have "pleaded" in dreams; mathematicians who have sought to solve problems, and poets who have composed verses; and, therefore, he regards it as incontestable that consecutive ideas occur in sleep. I will give one instance from my own experience where the ideas succeed one another in the way of natural suggestion and legitimate inference. I was visiting at a friend's house, and the irregular dieting led one night to disturbed sleep, and a semi-nightmare experience. I fancied that someone entered my bedroom, having a sort of framework or long bundle extending upwards from his head and shoulders, and pretty well doubling his height. I inferred that this was an attempt to frighten me, so I gave chase into another room, but could not overtake the figure. A doubt then crossed my mind as to whether the appearances were real. I put out my hand to grasp something—my hand passed through it—and I said to myself, "Ah!

it is all delusion." But immediately after, grasping at something else, which might be ornaments on a mantelpiece (and here, I suppose, my fingers may perhaps have touched the bedstead), I seemed to feel them to be substantial, and I said to myself, "The things are real!" Moving to return back from this room into which I had followed the figure, I observed two persons in a bed near the door; and inferring them to be as real as the ornaments on the mantelpiece, I said to myself, "I am in a bedroom where strangers are sleeping—I must surely be walking in my sleep." In this dream, as in so many, the eye conjures up pictures of persons and things, and the mind is easily deceived, and mistakes them for realities, but the processes of thought are just what they would be if the circumstances were real. The great naturalist Cuvier once dreamed that the devil had come to devour him, but, on observing the evil spirit's horns and hoofs, he inferred that he must be gaminivorous in his habits, and so dismissed his fear. Here we see the naturalist reasoning about a strange animal just as he would do when awake. Agassiz, the naturalist, dreamed out the proper classification of a fish. The method adopted for the manufacture of small shot is said to have come to the inventor in a dream. About the year 1783, a Bristol plumber named Watts dreamed that he was out in a shower of molten lead. He observed that the metal came down in spherical drops, and afterwards, to find whether it would be so, he went to the top of a church, and poured melted metal into a vessel of water below. To his great delight, he found that the lead had gathered into beautifully formed globular balls, and he at once took out a patent. This story, as told, looks like a revelation coming in sleep; but I think it likely that Mr. Watts had been cogitating the matter of making shot, and thinking over the analogy of raindrops.

\* The author is alone responsible for the statements in this paper.—ED. C. M.

The suggestions of a disturbed retina may usually cause the thoughts in dreams to ramble incoherently ; but where the mind is intent upon some abstract matter, it would appear that lengthy trains of reasoning may occasionally be carried out. A clergyman may compose a sermon in a dream ; and a case is recorded of a lawyer dreaming an excellent address to a jury, and getting up, in the manner of a somnambulist, and writing it out. Campbell, in a dream, excogitated the celebrated line,

“ For coming events cast their shadows before.”

S. T. Coleridge composed a poem while in a profound sleep, which followed upon the taking of an anodyne, and overtook him while he was reading, in “ Purchas’s Pilgrimage,” the passage which says that Kubla Khan commanded a palace to be built, and a stately garden thereunto. The poem begins thus :—

“ In Xanadu did Kubla Khan  
A stately pleasure-dome decree,  
Where Alph, the sacred river, ran  
Through caverns measureless to man,  
Down to a sunless sea.”

We have about fifty more lines of this poem ; and the author believes that he dreamed 200 or 300, only while he was afterwards writing them down he was called out on business, and then they had vanished from his mind. We have also stories of bank cashiers recollecting in their sleep the payment of moneys which escaped their memory when awake ; of lawyers dreaming where to find documents they had lost ; and of engineers or mathematicians dreaming their way to the solution of difficulties. Such cases have given rise to the idea that the faculties are exalted in our dreams, and perhaps supernaturally assisted ; but the inference is hardly justified. Dreams are *usually* so incoherent and unreasonable that the exceptions appear more wonderful by contrast. The brain being partly asleep and inactive is surely unfitted to perform greater feats with half its forces at command than with the whole. Agassiz only dreams out the classification of a fish because he is a naturalist, familiar with fish structures. Tartini must be a musician already, to compose his Devil’s Sonata. Coleridge would not dream the poem of Kubla Khan if he were not a poet of great imaginative powers, able to compose the poem when awake—which Brodie, by-the-by, suggests that he actually did. It is inconceivable that the inspiration to write it should come to an ordinary mortal. And as to a lawyer finding a lost document, he was searching for it the previous day, and simply continued his search in his dreams, with the advantage that there was nothing to distract his attention.

One part of our subject necessarily overlaps another. It has already appeared that we believe in the real existence of what we seem to see in our dreams. This is a third point of coincidence with our waking life. Once in a dream I saw an ungainly horse, as large as an elephant, and with a head behind as well as in front. I did not doubt the reality of what I saw.

In our daily experience “ seeing is believing.” We need not confuse the question by talking about the

tallacies of sense ; we know, of course, that every one of the five senses is liable to be deceived ; yet it is true, generally speaking, that we believe the testimony of our eyes. I have already pointed out that the optic nerve appears to be very active in our dreams. I would now remark that this ready belief in what we see—which is so reasonable a thing when we are awake—accounts for that very remarkable fact of dream experience, that we dream of the dead and suppose them to be alive. There is nothing unreasonable in it. On the contrary, if we were to see to-day—entering our house, and standing before us—persons whom we have long regarded as dead, we should soon become persuaded that they were alive, and should frame some hypothesis to account for our former notion—either they were in a trance only, when we thought them dead, or we had been misinformed about their death, or something else. The priest who thought he saw Thomas à Beckett, after his murder, ascend the altar stairs, inferred that he had risen from the dead. In January, 1884, a girl, Emma Whitaker, certified by the doctor to be dead, laid out and measured for her coffin, got up and called downstairs to her mother ; it was inferred, of course, that the doctor had misjudged.

Against this kind of explanation it will be urged that we feel no surprise in our sleep when we see the dead, and that we sometimes fail to remember that they are or have been dead. It is so : yet these two objections partly neutralise one another ; for if we remember not that a friend has died, we have no occasion to feel surprised if we find him living. The curious fact that we do not remember they have died, results, I suppose, from the brain cells which have that item of memory in their keeping being among those which are locked in sleep. If no brain cells were locked in sleep we should be awake, and not dreaming.

I must now set forth the argument in favour of my greatest heresy, namely, that no very long dreams take place in a very short time, and that Lord Brougham and other writers are wrong regarding that. Lord Brougham intimates that the prick of a pin will immediately produce a long dream, which seems to terminate in some such accident as that the sleeper has been wandering through a wood and received a severe wound from a spear or the tooth of a wild animal, which at the same instant awakens him. A gun fired in one instance, during the alarm of invasion, made a military man at once dream the enemy had landed, so he ran to his post, and repairing to the scene of action, was present when the first discharge took place, which also the same instant awakened him. These facts, he says, show the infinite rapidity of thought, the mind having gone through a long operation of fancy in a single instant, a mere point of time. I cannot see that they show the rapidity of thought at all ; they only show that the mind, in sleep, misconceives time and the succession of events. The military man hears the gun, and fancies himself defending his post against the enemy ; the enemy, of course, having landed and himself having run to his post—all of which

stands present to his thought simultaneously as in a picture, and it takes no more than a second to glance at a picture. We are told that a gentleman, a friend of Dr. Abercrombie's, dreamed he had crossed the Atlantic and spent a fortnight in America, and then, in embarking to return, fell into the sea, the fright awaking him, when he discovered he had not been asleep more than ten minutes. This is considered very wonderful—that the mind should go through a fortnight's experiences in ten minutes. But I see no proof that the mind has been through those experiences at all. All that it does is to conjure up in a single instant a vague picture of recollections. For instance, I myself have just returned from a three months' tour in the East. You ask me whether I remember my journey, and I say that of course I do—at this moment. But what is the condition of my mind when I thus remember? I seem to glance at the countries I have passed through; I see a ship steaming across the Mediterranean to Alexandria; there is Cairo like a dot on the map; Jerusalem is perched on the mountains, and it is a very steep descent to the Dead Sea; Damascus is a long ride north-east; Constantinople (only reached after a long voyage) is beautifully situated; and so on. These things rise before me as in a picture; I glance at them mentally as I might look at a picture, the incidents and details of the tour are not present to my thought when I say I remember my journey, but I should have to *recollect* them, and it would be impossible to recollect them *all* without spending a long time in the process. No, such remembrance of my tour as I am conscious of in one instant is no more than a vague mental picture, a single glance at a map. Is there any reason to suppose a more detailed remembrance when a man dreams that he has been a fortnight in America? It will be replied, No; not in his mere remembrance of the fortnight, but he must have dreamed his way through a fortnight's experiences before he could remember them. This, however, is what I question. I have shown that he does not remember a fortnight's experiences, but only has present to his mind a vague outline, and now I will add that this picture is not an outline of anything that has been previously in his thought in his dream—it is not a memory at all, but a new creation of the mind called up suddenly by way of hypothesis to account for his sensation of falling into the sea. The hypothesis or guess is at once taken for reality, in the same way that every conception in our dreams, whether of persons or things, of sights or sounds, imposes upon us an impression of reality, because the sense organs are resting and the brain cells which would correct our judgment are asleep.

No doubt that, if such a dream should continue—the dream of having been to America—the dreamer might recollect (as he supposed) the incidents of his journey, and recall, one after another, the events which occurred to him. Yet this would not be a true recollection, but only the semblance of it, the ideas being really new, and now present in the mind for the first time, though viewed as relating to the past by a fiction of the judgment. Is it, then, impossible to

have a lengthy dream and, in the later part of it, to remember scenes and incidents of the earlier part? I do not say so: on the contrary, I should say that it does sometimes occur, though never in a way to imply that we have had a fortnight's experiences in ten minutes. How, then, are we to distinguish between true recollections in dreams and seeming recollections? We are able to distinguish by our consciousness when we pay attention to the processes of the mind. I find that, in my own dreams, I sometimes recollect events of my waking life, sometimes remember some earlier incident of the dream, and sometimes mistake my latest thoughts for recollections, because they come into my mind as hypothetical causes of something I have endeavoured to account for.

Take another dream (July 15th, 1884). Omitting irrelevant matter, the following may be noted. There was present to my dream-consciousness a long room, out of which smaller rooms opened at the upper end at either corner. I was in the right-hand ante-room, and excused myself from the company there to go into the other ante-room. Looking through the open door of that room from the large room, I thought I saw a great furnace, partly behind the door; but on going into the room and looking fairly behind the door, no furnace was there, but a bed, on which was a little sick child. Retreating noiselessly lest I should wake the child, I began to recollect what it was that had happened to make the child so bad. But I awoke before I had fully recalled the circumstances—or, rather, before I had time to invent the circumstances. I was on the point of framing a hypothesis to account for the child's illness. It was a matter of consciousness with me that I was doing so. Nothing had occurred in the dream to lead to the child's illness; in fact, the existence of the child had not come into the dream till the furnace disappeared and the bedstead took its place. I could relate a dozen dreams, all proving the same thing—namely, that a new thought entering the mind as a hypothetical explanation of a present fact, is accepted by the mind as the actual preceding cause, and is, therefore, regarded as a recollection. It is difficult for me to prove the point to others, but the evidence to myself is conclusive, consisting in my own experience of my own states of mind. In my dreams and my reflection on them, the difference between a true recollection and a pseudo-recollection such as I have spoken of is as clear as the sure distinction I am able to make in my waking hours between remembrances and new ideas.

A little dream related in "Psychological Inquiries" shows how the dreamer's mind framed a theory to account for the pain he felt; but the writer does not seem to see what it implies in the way of pseudo-recollection. He dreamed that someone gave him a shell-fish, something like a mussel; that he ate it, and after swallowing it, felt it to be very acrid, producing a pain in his throat. When he awoke, he found that he laboured under sore throat.\* The sore throat, it is not doubted, suggested the dream; so the thought and

\* Brodie, I. 150.



persuasion of having swallowed an acrid shell-fish came subsequently to the pain in the throat, and yet produced the impression of being a recollection of a previous act. It is only one case of anachronism; and dreams are full of anachronisms.

I have said enough concerning the deception practised upon us by our thoughts. It will interest some readers to know that our feelings are trustworthy in our dreams, and our emotions do not deceive us. We dream that we are hungry, or cold, or suffering pain, because we really are so. We dream that we love our friends, because it is really the case. In our dreams we call up strange scenes and witness unlikely events; but we are impressed by the events in the same way that we should be were they real; and we imagine ourselves to speak and act as we commonly should do under the supposed circumstances. Consequently the dreamer's character is more or less revealed in his dreams. It may become apparent to himself, as though declared by a heart-searching prophet; and it may be revealed to others if he relates his dream circumstantially at the breakfast-table.

Here again I know that I am out of accord with one writer at least, who says that in dreams the brain reverses its everyday procedure, and goes round from left to right for the sake of variety. The moral sense is absent (says this writer). The man who would go to the stake rather than do a dishonourable act imagines himself cheating at cards. The woman who never yet voluntarily hurt a fly, chops a baby into mincemeat. A most kind-hearted lady informed Miss Cobbe that she palmed off a bad sixpence on a beggar (in a dream) and chuckled at the notion of his disappointment. A distinguished philanthropist, exercising for many years high judicial functions, continually commits forgery in his dreams, and only regrets the act when he learns that he is to be hanged, &c.

But there are two possible sources of error when writers take the dreams of other people as their data. First, the dreams may not be quite accurately narrated. In that of the good man to be hanged for forgery, for example, if the commission of forgery only comes to his mind as a recollection to explain his position as a condemned man, he has not really dreamed of committing the crime. Secondly, the inner character of the dreamers may not be known to their friends, and perhaps not recognised by themselves. Either one of these two sources of error; or the moral character and the emotional nature go more to sleep in some dreamers than they do in me. Otherwise I should say that, if we observe our own dreams, we shall find that our feelings are touched and stirred, and exhibited or controlled, according to the natural effect of the circumstances upon a character such as we possess. Indeed, I would trust the incidental revelation of character afforded by a dream more than the calculated speech and conduct of the waking person. *In vino veritas*, and also in dreams! When Dr. Johnson, in that dream, had a contest of wit, and felt much mortified because his opponent had

beaten him, it showed that Dr. Johnson *would* be mortified if he were really so beaten, in his then condition of health, and under all the supposed circumstances of his dream. Perhaps he would hide his feelings, and not tell Boswell; while the feelings he had in his dream he is ready to tell. But surely they were stirred in him by the circumstances according to the habit of his soul, as truly as thought suggests thought in the chain of connected ideas. If a person who professed friendship for me told me that he dreamed I was reduced to poverty and asked him for help, which he felt no inclination to give, I should doubt the sincerity of his friendship. If I were travelling with a companion in Switzerland, and he dreamed that he was jealous of me, and that upon the occurrence of "a few words" between us, he pushed me over a precipice and rejoiced in the deed, I should go no farther with him. The Rev. Henry Rowley, who was connected with a mission in Africa, writes as follows:—"The chief of our district began to dream that the spirits of his ancestors appeared to him, and were angry with him for permitting us to live in his territory, and warned him that, if he did not soon get rid of us, we should get rid of him, and make ourselves masters of the country." Mr. Rowley rightly inferred that the chief's dreams were the embodiment of his own suspicions, and on that account foreboded trouble to the mission.\*

In this way, and to this extent, ordinary dreams may be interpreted; and we may approve the following sentences from an old preacher: "There are many people that find out more mysteries in their sleep than they can well expound waking. . . . If they dream of a green garden, then they shall hear of a dead corpse; if they dream that they shake a dead man by the hand, then there is no way but death. All this is a kind of superstitious folly, to repose any such confidence in dreams; but if any man desire to make a right use of dreams, let it be this: Let him consider himself in his dreaming to what inclination he is mostly carried, and so by his thoughts in the night he shall learnt to know himself in the day. Is he turbulent in his dreams, let him consider his own contentious disposition. Be his dreams revengeful, they point out his malice. Run they upon gold and silver, they argue his covetousness. Thus may any man know what he is by his sleep, for generally men answer to such actually waking, as their thoughts do sleeping." †

If I have disappointed any by my silence concerning premonitory dreams and their fulfilment, and dreams in which the will of Heaven is revealed, otherwise than as an impression of duty to be done, I have only to say that those branches of the subject are large and difficult, and I have found a sufficient theme for the present occasion in the ordinary dreams of which we all have some experience.

GEORGE ST. CLAIR.

\* "Religion of the Africans," by the Rev. H. Rowley. p. 119.

† Shute's "Sermon," London, 1633.