REMARKS

ON

WILL-MAKING IN APHASIC PARALYSIS.

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Partial Right sided Hemiplegia, with Motor Aphasia Complete both as to Speaking and Writing.—Instructions for Will Given by Patient through the Medium of Printed Cards.—Death Twenty-two Days after Execution of Will.—Will Proved in Solemn Form in Probate Court, London, on February 12th, 1900.—Approval by President of Probate Court of the Method Devised for Ascertaining the Wishes of the Testatrix. Judgment for the Will.

HISTORY OF THE CASE.

A SINGLE lady, 60 years of age, who had been under my care for years, became the subject of partial right-sided hemiplegia, together with confusion in speech and in writing. Later on the hemiplegia improved, but her loss of power to speak or to write became complete. Her conduct remained perfectly rational, and her mind was evidently intact. She understood gesture, slow careful speech, and very plain writing. In-going ideas by way of ear or eye seemed to find complete mental receptivity. Out-going ideas were completely barred for want of power to utter them either in speech or in writing. Gestural indications and facial expression, together with assent or dissent by nodding or shaking the head, were all the language which she could command.

When led by the reading aloud or speaking out of sentences which she was invited to repeat she could speak distinctly. In writing, her letters and words were formed perfectly, and her own name was signed correctly. But soon her meaning became unintelligible. Her writing was full of repetitions, as if labouring to express herself, but unable to complete her propositions. She repeatedly recommenced a phrase, apparently in hope of getting it completed, but was unable to find words, or unable to find the right words. Later on, not a word that she spoke or attempted to write could be made out. There was complete motor aphasia, except that up to nearly the last an interjectional "No, no," or "Yes, yes," would sometimes come.

After a week's rest in bed and careful nursing she was able to get up for part of the day and to take exercise by walking about upon the floor on which her bedroom was situated, she leaning on the arm of her maid. She used to sit about, read the newspapers and current literature, and superintend a little tea-table which she caused to be set up for herself in her bedroom. At this time she wanted to go down and see after the house, and when I intervened she protested that I was making "too much fuss over her little attack." I used often to join her at tea after I had completed the professional business of my visit. She managed her little tea-table just as if she were in her drawing-room, would pour out my tea as usual, though as if her right hand were feeble and sometimes needed to be helped out by her left. But she held up the cream or sugar, and looked at me till she caught my wishes, and, after putting in one lump of sugar, would wait with a second in the sugar tongs until I spoke or indicated my wishes.

I often put my finger on to the cream jug or teapot, and said "What is that?" Sometimes she would name all or most of the things on the table—more often the monosyllabic than the polysyllabic names—and when she succeeded she would laugh as much as to say, "There now, that's all right; you see I'm improving." At other times she would be unable to say "cream" or "sugar" or "cake," and she would look wistfully at the objects to which I pointed and then look at me and laugh, as if at the oddity of her condition.

One day, after she had named everything upon the tea-table correctly, I took from the mantelshelf a box of matches, and, holding it up, said, "What is that?" She looked at it for some half minute, and then said "centipede." But when I laughed and shook my head, and said, "No—box of

matches," she said, "Yes, yes, of course. Box of matches." I cannot see how she came to associate the word "centipede" with a box of matches, except by means of suggestion due to the fact that she had recently been travelling in Palestine. At other times I found her playing a game of patience or telling fortunes to herself, with small playing cards, all spread out before her on a table. If I took up a card and held it up, and said, "What is that?" she would say off-hand, "Six of diamonds," or if I had picked up another card, name it correctly. I found that she could always name the ordinary playing cards correctly and off-hand, although she might not be able to name objects of another sort.

Here I may, perhaps, say that the patient was an accomplished lady, a good linguist, and an able woman, managing her own affairs with very few confidences in her immediate relatives, but often consulting me seriously in important matters. She was a woman of powerful will and high intelligence. We frequently dined at each other's houses, and she was one of those interesting patients who also become personal friends. Her kindness and benevolence to her servants and others was so extreme that often I remonstrated with her. In conversation she rather tired herself by her fluency, and her command of language had always been remarkable. She was fond of horses, and took active exercise out of doors as well as in her house. Now and then she had gouty manifestations and slight uric acid nephralgia, but by her activity and her moderation with regard to wine and food, gout was kept at bay. There was never a trace of albuminuria nor of glycosuria. She was a muscular well-built woman of some 170 lbs. She was right-handed. After her seizure the pupils were equal and active. There was no deviation of the tongue; no noticeable hemianæsthesia. There was slight paralysis of the right facial muscles. She was never emotional—always a model of quiet endurance and submission to her illness.

In April, 1896, I find from my notes that she consulted me professionally about her right knee, which she had injured and bruised by a fall at Davos, but about which I took the view that it was of central origin, there being also well-marked numbness of the knee and foot. Later on—December, 1896—persistent numbness of her right hand supervened, and there was some little clumsiness in its action. In August, 1897, I find another note as to this persistent numbness of the right hand. In August, 1898, I find notes of distinct threatenings of an outbreak of gout, together with uric acid deposit, for which I gave her 20 grs. of potassium bitartrate in a tumblerful of Salutaris water as her beverage at lunch and dinner. This relieved her entirely of her gout, she travelled in Palestine, and she did not see me again professionally for herself until July 10th, 1899, when her butler fetched me at 11 P.M. He told me that she had had a dinner party at her house that evening, and that after all her guests had left she had been seized with faintness, and seemed so unwell that he had thought it his duty to fetch me. I found her dazed and faint, with weakness of right arm and leg, and with her speech in a state of confusion. Her mind was perfectly clear. This was the commencement of her last illness, and the preliminary narrative already outlined is now followed on from this date of July 10th, 1899. On August 3rd and 4th my patient made her will. On August 13th the nurses noted in their journal "Patient had a slight attack of faintness." From that date there came on a spastic condition on the right side, affecting chiefly the arm. For this massage was used. On August 18th a further stroke of paralysis occurred, which rendered her thenceforth unable to leave her bed, but she still read newspapers and books, said her prayers with great regularity, and as to her mind seemed only feeble. On August 25th a third extension of cerebral mischief occurred, respiratory paralysis gradually came on, and on August 26th she died. On August 3rd Dr. Lionel Beale, at my request, saw her with me, and we wrote out a short report of her condition at that time. On August 9th Dr. Beale saw her with me again, and we wrote a second report. On August 18th I asked Dr. Beale to see her with me again, and on August 25th we had a fourth consultation. From July 27th a day and night journal of the case was kept by the nurses.

In 1897, I think, my patient asked me about making her will, and I advised her to see her solicitor and get the matter off her mind. Her solicitor was Mr. Samuel Garrett, M.A., of

the firm of Parker, Garrett, and Holman. He had been solicitor to her father's will, and knew all her affairs. She saw him at that time, but could not quite make up her mind on all points as to her will. The will, therefore, went over. She did not mention the matter to me again, and as she seemed to be in excellent health, the will question did not recur to my mind. But she was possessed of landed property and personalty to a considerable amount, and there were powers of appointment under her father's will which she had never exercised, and as to which it was of considerable importance that she should determine whether she would exercise them or not.

Now that my patient and friend had fallen into this aphasic condition I was anxious to see that she had, if possible, the opportunity of making the will which she had wished to make. But the matter seemed extremely difficult with a patient who called a box of matches a "centipede." Yet, if she had wanted to light a candle she would have used the said box of matches precisely as I should, and it was clear to me that her mind was intact, although she could not find the words which she needed in order to produce her ideas. She seemed to look at things precisely as a busy man of full age has sometimes to look at someone—someone whom he recognises perfectly, and whose business he knows all about, but whose name he cannot fish up out of the recesses of his memory. My patient was unable to name things at all with any certainty, sometimes she seemed as if at the Tower of Babel and utterly unable to communicate with those around her. But, in her, this loss of power to name things, persons, actions, relationships, and other notions was practically absolute and persistent. Looking back also over the persistent numbness and fumbling of the right hand and the right foot, I believed that her condition would be a progressive one unless she should speedily mend. She did for a time mend considerably as to the ordinary muscular actions, and the sensations of her right side remained almost unimpaired. But I did not regard her case as a promising one. Meanwhile, the question that exercised my mind was, whether we could obtain for her an opportunity of making her will without laying the foundation for painful and costly family litigation. I came to the conclusion that my patient was still a clear-headed resolute woman battling with a breakdown of the apparatus by means of which she could make her mind known to outsiders. The breakdown was in that highly artificial and very delicate apparatus of exposition which we call speech and writing. Her gestural and facial expression was practically unimpaired.

It was after several times testing her with her playing cards that the idea occurred to me of devising a system of bold printed cards upon which various categories of property to be bequeathed, of functions to be performed, of persons to receive those properties or to perform those functions, should be denoted. The idea worked itself out at once, and I took occasion next day to join her at tea, and to ask casually if she had made her will. She shook her head and looked at me as if she wished she could talk. I said, "Oh, I have made my will a long time ago, and I wish you would make yours; I want to get you down to Brighton shortly if possible." She nodded approvingly, and I said, "Write to your solicitor." She said, "I will." At about the same time I spoke to her brother, and he quite approved of her having every opportunity of making a will if it could be done. Next day (July 22nd) I wrote her a short letter to the same effect and left it with her, asking her to read it carefully, and meaning it to bring matters to a point. On the day afterwards I broached the matter again, and she said, "Yes, I quite approve," but I could not ascertain whether she had taken any step in the matter; in fact, the words, "Yes, I quite approve," had exhausted her capacity for utterance. I was convinced that she would like to make her will. She was, however, quite unable then to write to her solicitor, and equally unable to give a verbal message for him to her brother or servants, and soon afterwards I suggested to her brother that he should ask Mr. Garrett to call upon her and reopen the question she had herself previously raised as to making her will. I had then come to the conclusion that no more time should be lost.

Late in the evening of August 2nd Mr. Garrett called at my house, and I explained to him the real significance of her

aphasic condition, and went on to describe the cards which I had planned out, and by which I thought we might safely get her to give instructions for her will. Mr. Garrett seized the whole idea at once, and we made an appointment to see the patient together next evening at 7.30 P.M. Meanwhile Mr. Garrett forthwith drafted the lists of things, functions, and persons whose printed card representatives were to be sorted over and grouped together by the patient. Next day Mr. Garrett sent me up a sample set of the cards duly printed, and these I entirely approved. That evening we spent some two hours with the patient—no nurse, no relative, no servant present—and we got complete instructions for the will. Not a single suggestion, not a shade of influence, was allowed to affect the patient's mind; the whole will was absolutely spontaneous, and it was as good, effective, and just a will as ever was made. Mr. Garrett marked and fastened together the groups of cards, worked the instructions out into effective legal form at once, and had the will engrossed. On the next day, August 4th, at 7.30 P.M., we met again in conference with the patient, read over the will clause by clause very slowly, and gave her full explanations. Ultimately she signified her full assent. She then put her mark to the will with some assistance, and her execution of the will was formally witnessed by Mr. Garrett and myself. The patient then executed a power of attorney, enabling her brother to act for her in business matters.

THE JUDGMENT OF THE PROBATE COURT.

As this will passed landed property and personalty to a considerable amount it had to be "proved in solemn form," that is, in open court, before the President, as in a contested action at law. The will had to be established by sworn personal evidence, and the witnesses to be cross-examined by counsel who represented relatives and others—whose interests were defeated by the will. Judgment by Sir Francis Jeune was pronounced in favour of the will, and the novel method which had been devised for enabling the patient to give instructions was approved of.¹ The following is a full report of the judgment of the Right Honourable Sir Francis H. Jeune:

This case is not quite an easy one because, as far as I know, it represents to me, at any rate, a novel mode of arriving at the real wishes of the testatrix, and I am perfectly conscious that what is suggested to me is suggested with a great deal of force, namely, that this method, although most well intended and in its way most ingenious, and on the whole, I think, satisfactory, leaves it open to question whether or no it does exhaust the wishes of the testatrix because, as has been pointed out, there is the necessary limitation, namely, that the wishes of the testatrix were bound by what was to be found on the face of these cards, and it is conceivable that there may have been a legacy, perhaps to a charity, or it might be a legacy to some person not within the circle of her relations, but a friend who may have been passing through the mind of the testatrix that she desired to make but to which she was quite incapable of giving effect. Or supposing this sort of case had been set up in its extreme form, that some name of a relation was by accident omitted, and was not on a card, or in a more extreme form if it had been shown that she had expressed at other times the fact that she had in her mind the intention of benefitting some person or object not named on these cards, I think it might be shown that these cards did not, in fact, contain the whole statement of her wishes.

But, taking the matter as it stands, I think I am satisfied that her wishes were fairly ascertained. Everything was done that could be done. Nothing could have been more fair and ingenious (I mean skilful; I do not mean to suggest any kind of subtle ingenuity), more skilful than the means adopted by Mr. Garrett and Dr. Edmunds; and I think they did everything any human being could do; and inasmuch as they did put all the names of her relations, and as there is no reason to suppose she desired to benefit anybody but the relatives, I think on the whole one may say the will expresses her desires.

With regard to the executors, it is clear it was not so fully ascertained, because no doubt she wished to indicate somebody else, but could not. On the other hand, I think it is fair to say that she did not regard the executorship of great importance; and when she found a difficulty in indicating the second name, she waived it, and allowed the one only to stand. That leads me to say this: It is not absolutely limited to those cards, for the reason that the will was written out, and was read over to her; and I see no reason to doubt that, when it was read over to her, she was able to follow what was said; and if that will had in any material respect differed from her wishes, I have no doubt that, by touching the arm of Mr. Garrett, or in some other way which was indicated to her, she would have been able to convey to him that that was not her will. I think she had quite sufficient strength of mind and knowledge of the will to lead her to disapprove of it if she wished to.

On the whole I think the method was fairly and satisfactorily adopted, and I feel satisfied that the will is the real will of the testatrix. I propose to grant probate of it.

Mr. Drury: I ask your lordship to say that it is right that I should be here, and that my client should have costs out of the estate.

The President: I think so. Mr. Barnard, what do you say?

Mr. Barnard: Yes, my lord. And there is the Hand in Hand Insurance Office.

Mr. Priestly: I represent them.

Mr. Barnard: They made inquiries and had all the facts before them and they were satisfied, and they ask for their costs out of the estate.

Mr. Priestly: Yes, we did inquire into the matter.

The President: Yes, it is so peculiar a case that I think it was right that careful inquiry should be made, and I think costs should come out of the estate.

In consequence of Sir Francis Jeune's judgment this becomes a leading case in will-making, and as the circumstances are such as will be of special interest to medical as well as legal practitioners, I am submitting the case in fuller detail than I should otherwise have done.

REMARKS ON THE AGRAPHIA AND APHASIA.

I am indebted to a lady, who was one of the guests, for a letter written to her by the patient one or two days before the dinner-party. Names suppressed, the following is a copy:

My Dear Mrs. (correct name, and perfectly spelled).
 Pray let me let me forgive you, for forgiving you for
 forgiving you for not forgiving you for not letting you you
 know not, and letting you know eight o'clock.
 I know eight o'clock Sunday Sunday.
 Yours Sunday yours
 (Correct signature.)

The above letter was a reply to one of the guests who had written to ask at what hour the dinner would take place, and the fact that the patient in her invitation had omitted to state the hour may be noteworthy. The above print of the letter has been spaced out so as to show what, in my idea, were the consecutive mental efforts which the patient then made in order to fish up the words which she required for the expression of her thoughts. As to the handwriting, it was well formed, and every word was spelled correctly. Therefore, as a matter of handwriting, the letter would perfectly pass muster. But the letter reveals the patient's mental condition as to inspiring the machinery which wrote it. It shows obstruction to the flow of the writer's thought; it shows repeated failures to complete the expression of the propositions which constituted her intended letter. The mental current was blocked by a lack of the words which she needed in order to deliver herself of her outgoing ideas. What the patient wanted to write was probably as follows:

Pray forgive me for not having let you know the time at which we dine.
 It will be eight o'clock.

Sunday.

Yours, affectionately,

(Signature).

If this be a correct imaging of what the patient intended to say, the curious inversions which the letter contains as to the subject and object of its verbs are worthy of study.

Such writing and such speech are often called "jargon letters" or "jargon speech." But this ink letter of August 8-9th has no true resemblance to "the sounding jargon of the schools." I call it a Tower of Babel letter. She had a keen perception of what she intended to write, but she could no more write it than I could write down my ideas in the Chinese language. She wrote and spoke Babel.

The dinner-party was on Monday, July 10th, at 8 P.M. The patient who had written that letter did her shopping, managed her household, and prepared for her dinner-party; she then conducted her dinner-party through to its natural end, and her guests all left in the usual way, without any comment so far as I can learn. It was only when the strain was over that "the seizure" occurred.

Some ten days after the seizure—say on July 20th, upon one of the occasions on which I tested her with a view to possible will-making, or asked her to write me a letter to her solicitor—she wrote me some sentences in pencil. These sentences were written upon a very comfortable bed-rest table, which was set up on the bed before her, and upon which she was reading when I went in. I stood by her bedside. The writing runs as follows:

Hox (Flora ?), let me have the have the (xox ?) left at at
 Kozhall on Tuesday it on Thursday last laid on Thursday last
 (last ?) Send (Lead ?) it by Soy the sea sea The Shea by the Sea
 by the sea on the the Son by on Jhe by the Son
 (erasure of short word) by the by the the By the Ky
 in on the Sea.

This pencil writing I cannot in the least explain nor understand; its words and letters are still fairly well formed, and, as handwriting it would pass muster. But the chaos in expression has advanced beyond merely affecting the construction of sentences and impeding the development of propositions. Chaos now affects the names of things, and wrong words come in. The inversion of subject and object also appears to have developed into the substitution of one letter for another in particular words. Some of the words cannot be made out; they are collocations of letters which form dummy words. Such dummy words might be put in as we put $x y z$ into an equation, or they may be merely collocations of letters, that is, real words in which substitution or exchange of letters has occurred in such a way as to make them unintelligible. In the ink letter of July 8th-9th, we get well-written words and faultless orthography, with a mental inversion of subject and object, and a mental inability to complete the expression of the propositions which constitute her letter. In the pencil writing of August 20th there is superimposed upon these characters a profounder disintegration of the faculty of language.

In the ink letter of July 8th-9th we get:

Well-written words.

Faultless spelling.

Mental inversion of subject and object.

Partial inability to complete the expression of propositions.

In the pencil writing of July 20th we get:

Fairly good writing.

Absolute inability to set out her propositions.

Wrong names, or the substitution of one word for another.

Words falsified by the substitution of one letter for another, or put in as dummy words, or used as we use $x y z$ in an equation.

Upon August 3rd, when we took the instructions for her will, there intervened one of the limitations of this card method. As the subject matter of the final step, Mr. Garrett laid down a card on which was printed "APPOINTMENT OF EXECUTORS." Here the patient took up the "relatives' pack," and turned them over and over as if not satisfied. Then she showed us one name, but did not put it down. We came to the conclusion that she wanted a second executor whose name was not before her. Several names were mentioned, but she shook her head. At last we gave her paper and pencil, and asked her by voice to write the name down. She perfectly understood, and she made several attempts, but she could only scrawl on the paper. She could now write nothing—not a word, not even an intelligible initial letter. Her handwriting was gone, as well as the mental faculty of speaking out and writing down outgoing ideas. At last she turned the *impasse* by throwing down the card which she had previously shown us, and which was that of her brother and heir at law—a member of Parliament and a most fitting and natural executor.

I made several other attempts to get her to write, but I cannot put my hand on other results. They would only have corroborated in detail the course of the case as shown by the above three illustrations, and at the time my object was simply to do the best I could for my patient and friend. I did not then anticipate the medico-legal importance which this case would assume after the will had been proved in solemn form, and its method been so emphatically approved of by the judgment of the Probate Court. I find, also, that I did not ascertain whether she could have written out sentences which might have been read aloud to her, or placed before her in bold print. I was occupied by the clinical aspects of her case, and the desirability of determining this question did not occur to me. Looking at the way in which her right hand served her mind in other matters, I see no reason why she should not have been able to write to dictation, just as she could speak to dictation.

Up to this point we sum up the history of the case by saying that on August 3rd, when she gave instructions for her will, she was the subject of complete motor aphasia.

As to her speech, it was only occasionally that she could blurt out one or two interjectional words. As to her writing, she was unable to indicate, even by initials, the name of the second executor whom she wished to be appointed in her will. Yet her conduct was eminently rational. Her facial expression was active and significant. She watched everything that went on around her with great intelligence. The mind, which could not find words for a single utterance of outgoing

thought, could easily utter the words of sentences which were read aloud or spoken out to her. The hand which, to my knowledge, formerly wrote a particularly bold, firm, clear handwriting, still served her to feed herself, to turn over books and newspapers, to say her prayers (as a Catholic), and even to handle deftly enough the cards by which she was enabled to make her will. But it could not write a sentence, not a word, not a letter that was intelligible as the expression of an outgoing idea.

The reports which have been mentioned were:

August 3rd, 1899.
Miss — has had a stroke of paralysis affecting the right side to some extent, and her faculty of language is seriously affected. Her mind and intelligence are perfectly intact.

LIONEL S. BEALE, M.D.
JAMES EDMUNDS, M.D.

August 6th, 1899.
Miss — is going on fairly well, but is still in a very uncertain condition. The mind is perfectly intelligent, but the faculty of speech is practically in abeyance.

We think that the same treatment should be continued.

JAMES EDMUNDS.
LIONEL S. BEALE.

August 18th, 3.30 P.M.
Miss — has a little failed in general power, but otherwise her condition is much the same.

We think that the same treatment, diet, and regimen should be pursued.

LIONEL S. BEALE.
JAMES EDMUNDS.

August 25th, 1899.
Miss — has had a further extension of the mischief in her brain, and her strength is considerably lower.

Her mental powers are now largely in abeyance. She is not in a condition to see friends unless that be absolutely necessary.

The present treatment should be continued.

LIONEL S. BEALE.
JAMES EDMUNDS.

THE METHOD OF CARDS.

By means of categories of printed cards, a patient affected with complete motor aphasia may have brought to his mind effectively:

1. The items of any catalogue of properties which he may have to bequeath.
2. The offices which he may need to fill up in order to obtain executors, trustees, guardians, etc.
3. The names of all relatives and other persons whom he ought to consider in relation to bequests of the items of his property, or in relation to appointments for the necessary offices.

The above three categories may be added to, in order to meet the circumstances of particular cases. The catalogues in each category may be elaborated as the case requires. By means of detached printed letters, the method may be developed so as to enable an aphasic to spell out and indicate the names of any other persons whom he may desire to see added to the list, or to indicate any further items which may not have been catalogued in the list of properties. By apposing cards carrying names to such groups of detached letters, bequests might be made outside the catalogues of things and persons known to the solicitor and friends.

In the case of a blind aphasic it would be possible to bring to his mind successively each of the items by reading aloud the proper card, and, by means of an unequivocal collection and denotement of his decisions—as by the reader grouping the cards—the blind aphasic would be enabled to give instructions for his will.

In difficult cases of blind aphasia, the patient might perhaps be further helped by means of a second reader—one to frequently reiterate in a low monotone the name of the item to be disposed of, and thus keep this item persistently before the mind of the testator, the other to read slowly over and over the names of the persons until the testator indicates by gesture the one to whom he bequeathes the item. Blind aphasics used to the raised letters by which the blind read, would be helped by cards printed in these raised letters, and these they would read over and over by the sense of touch, just as seeing aphasics would read them by the sense of sight. These cards in raised letters might even help aphasics who, previously both blind and deaf, will now be blind and deaf and dumb. These would have no means of communication except by the sense of touch.

By one or other possible application of this card method, all patients suffering from complete motor aphasia would be

enabled to give instructions for a will. But I see no way by which aphasics perfectly illiterate could be helped by this card method.

An extension of this method of printed cards may enable chronic sufferers from complete motor aphasia to develop a new faculty of language in the right hemisphere of the brain so as to enable speech and left-handed writing to bring such patients back again within the circle of social life. The method of lip-reading would be a powerful accessory.

If the words used in every-day life be carefully posted up, it will be found that a vocabulary of some 400 words is the basis of all the permutations of speech which are required for every-day life. Grafted upon the circle of this every-day vocabulary there come technical vocabularies. These multiply so rapidly and develop at such length that a highly-educated man who has a large knowledge of things and has the faculty of discriminating speech will use many thousands of words. A man may talk about the weather, about his bread and butter and coffee, about the time of day and the clock, and about his horse a thousand times for once in which he may want to name a chisel, a screwdriver, or a plane. In every direction the speech of a man of active mind and extended thought radiates into these technical vocabularies; and, taking legal, or medical, or chemical, or mechanical vocabularies one by one, it is obvious that many of them would each fill up an ordinary-sized dictionary. If technical vocabularies were to be provided for, each aphasic must work out his own catalogues; but it is quite possible that a set of phrase cards might be devised to cover the round of every-day life, of shopping and travelling, and by means of which the motor aphasic might communicate his outgoing ideas readily with the aid of gestural language.

The ordinary courier will "speak a dozen different languages." The secret is that he never goes outside a vocabulary of some 400 words, except by means of a pocket dictionary. One day on going into an hotel at Munich I was accosted by a waiter who seemed to speak perfect and unlimited English. After ordering our dinner in half an hour, I said, "And I think we'll have a stroll." "Yes, sir." My wife and I went out for a stroll, and on returning for dinner the waiter told me that "it was impossible to get a stroll for dinner; there was not such a thing in Munich." Thus I had unwittingly got outside the every-day vocabulary of this waiter, who spoke with perfect fluency and ease so long as he kept within his list of words. As the every-day vocabulary consists of the names of every-day things, it is the same set of things which is named in every language, and it is only these different sets of names that the courier linguist learns up. He does not learn new things. With our absurd method of learning languages at school we mix up the ideas of general knowledge and linguistic culture with the simple object of becoming able to exchange ideas with people who speak a different language. Hence a man who knows many languages generally knows nothing else, and a youth who has spent years in the study of French verbs is discharged into the streets of Paris to find that he cannot make a bargain with a cabman. It would therefore seem that by means of bilingual phrase cards for each country—such as France or Germany or Turkey or Russia or China—and one's own language, those of us who are locally complete aphasics when we travel, say, in Russia, would be able to exchange ideas by putting down a bilingual phrase card, and offering to the Russian his choice of a group of other bilingual phrase cards containing among them the answer we want. In this way, within a circle of a small every-day vocabulary, and by means of a small bundle of bilingual phrase cards, we might extend the possibilities of travel indefinitely. How easily, for instance, his three daily meals might be ordered by an adventurous traveller in Russia or China at every fresh place by means of three bilingual printed cards. Then such small vocabularies might have their different categories of subjects printed upon cards running the gamut of the spectral colours, and thus naturally grouping themselves at a glance when taken out of the pocket. One hundred small bilingual cards so arranged would enormously facilitate travel.

THE PRACTICAL PROCEDURE.

Reverting to the practical procedure by which my patient was enabled to make her will, the following details will be useful:

1. For a paralysed patient in bed, as ours was, the cards should be large (4 inches by 5), thick, and white, boldly printed in black; type a quarter of an inch in height, and open laterally, with total abstinence from the abominations known as "ornamental" type and printers' flourishes. The cards should be such that a paralytic patient can comfortably handle them while he reads what they denote. He should be able to read them without spectacles, and the physician and solicitor should also be able to read the cards without crowding up to the patient. With so small a number of categories as will-making requires, there is no need to devise any grouping of the subjects by variously coloured cards. A comfortable invalid table should be arranged on the bed in front of the patient—a table with a large rising slope, and of such ample size that the patient may deal out and group the cards before him with a minimum of mental strain and physical fatigue. The patient must not be hurried nor bothered. An hour at least was occupied in taking instructions from this patient after having had a comfortable little talk with her and made her perfectly understand our card method and our proposed procedure.

2. Each card carries only the denotement of one single item—whether property, office, or person. This is fundamental. In dealing with the residue, "legacy cards" were used denoting different sums of money. These by grouping could be made to represent such various round sums as were likely to be wanted by the testator. If one block of property is left to the children of a sister or brother, say, or to two sets of nephews and nieces, that is indicated by grouping the names of all the recipients with that of the particular block of property which they take. The solicitor, in working out the instructions into effective legal form, shapes such a bequest properly, and, when the draft will is read over and explained to the patient, that shaping can be approved of or modified. A certain rational order should be preserved in dealing with the cards so as to avoid bothering the patient. For instance, we took the largest items of property first and in their natural order, one by one. We introduced no second item until the one before the patient had been quite disposed of. Each group of cards when settled should be marked, fastened together with two elastic rings, and laid aside in order upon the foot of the bed or upon a side table, like a row of tricks at a game of whist. We took first the Landed Property, then Town Residence—Furniture and Contents of Town Residence—Jewellery—Horses, Carriages, Harness, etc.—One half share under your father's will (value of one half about £16,000)—Private Property, Savings, Investments, etc., and all property not otherwise disposed of. Executors to be appointed. These are examples of items which appeared upon the several cards.

3. In taking the instructions Mr. Garrett first laid down upon the table a card denoting the most important item of the property. This was a family landed estate, which came to the testatrix under her father's will. This card with the name of "The ——— Estate" was laid down on the left side of the table, and Mr. Garrett or I said, "There now, whom do you give that to?" The patient had in her hands the complete pack of the third category containing all the persons, and she thereupon turned the cards over and over, and then slowly laid down upon the estate card the name of her brother, who would have been heir-at-law if she had died intestate. After a pause, to be quite sure that no other name was to share this item, a few words from one of us followed, such as, "Then you give that estate to your brother?" The patient nodded her head deliberately. The two cards were then marked, fastened together, and laid aside on the foot of the bed. Every other item was, with very few words from one or other of us, disposed of by the patient just in the same way, the jewellery being given to a niece, who was the testatrix's goddaughter, and who bore the testatrix's christian name. No one but Mr. Garrett and myself was with the patient. Every act was a purely spontaneous one, coming out of the patient's own mind without any sort of suggestion from either of us. I should note that after the first item had taken her brother's name out of the relatives' pack, a second card bearing his name was put into the pack, and, after the disposal of each item, this replacement of used names kept the pack always full in the hands of the testatrix. If the relatives' pack had not been kept

complete the patient would not for every item have had all the names before her, and therefore duplicate bequests could not have been made. A dozen copies of each card should be printed.

It should be realised that this procedure is not a mere dodge. It is based upon a definite scheme of scientific thought. Aphasics lose first and chiefly the names of things, places, and persons. These names cannot be replaced by pantomime. The things cannot be indicated except by producing their names, or by pointing out the things themselves as concrete objects of sense. Now this method of printed cards supplies to the patient's mind, through his eye, all such names as are needed for the making of his will. His will as to the distribution of these things is shown by motions of translation and by the establishment of static relationships in space. These simple rational motions and relationships become a language intermediate between vulgar pantomime and spoken or written language. Ordinary language also is produced by motions, but its motions are so purely conventional that they are unintelligible as between persons who merely speak different languages. Its motions, moreover, are extremely difficult, almost infinitely complex, and practically indeterminate. The aphasic has become unable to accomplish them. Contrary to all this, the simple rational motions and static relationships in space form a concrete thinking visible alike to the patient and others, and they partake sufficiently of the universal language of pantomime. They constitute a scientific pantomime. They are, moreover, perfectly determinate, of extreme simplicity, and they compass sufficiently the purpose of will-making. The scheme of the method, therefore, is to substitute these simple and rational motions and relationships in space for the unattainable complexities of speech, writing, or dactylography.

A most interesting account of the devices hitherto resorted to for utilising gestural language from aphasics for will-making will be found in a chapter on the Jurisprudence of Aphasia in Sir Frederic Bateman's work on *Aphasia*.

In giving evidence before the Court of Probate, I pointed out that this method of cards was subject to limitations which might make a will imperfect. For instance, a testator might own properties which had unwittingly been left out of the catalogue, and which therefore would improperly augment a bequest of general residue. Again, persons or objects—such as a private friend or a charity whom the testator had intended to benefit—might unwittingly be left out of the list submitted to the testator, and so lose their bequests. But the alternatives do not lie between a will made by this method of cards and a perfect will. The alternatives lie between a will made by this method of cards and an intestacy. Now, the persons and objects which under an intestacy would constitute the list of beneficiaries will be well known. If all such names be not submitted to the testator the will is voidable. But in either alternative the outside persons and objects, whose existence is for the sake of argument assumed, would be left out. Therefore a will made by this method of cards could not fail in expressing the full wishes of the testator more than the intestacy would have done. In fine, I see only one disadvantage, and that lies in the fact that a testator might be possessed of properties not known to his family and solicitor, and that such properties would fall into a bequest of residue, whereas under an intestacy such unknown properties would be distributed according to law. This one disadvantage must be set against other manifest advantages, one of which is to enable the testator to rescue his estate from descending to a spendthrift or to a *persona non grata*. Moreover, it must be recollected that this one disadvantage may be entirely obviated by properly shaping and limiting the bequest of residue.

The method of cards being adopted, it must be carried out with strenuous impartiality, with submission to testator of the completest available lists, with entire avoidance of undue influence or suggestion, with scrupulous care in procedure. At the subsequent perusal of the written-out will full opportunity must be given to the testator for amendment, and also for deliberate and unequivocal assent, before it is executed and witnessed.

REFERENCE

1 *Times*, February 13th, 1900.