Suggestions for a ready method of recording surgical cases in hospital practice / by Edward Lund.

SUGGESTIONS

FOR

A READY METHOD

OF

RECORDING SURGICAL CASES IN HOSPITAL PRACTICE.

By EDWARD LUND, F.R.C.S.,

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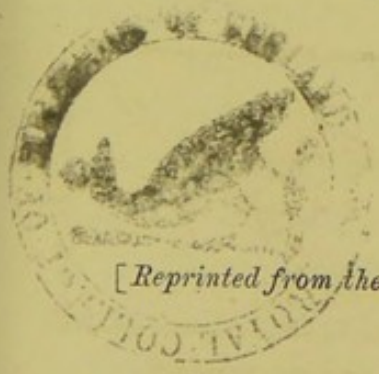

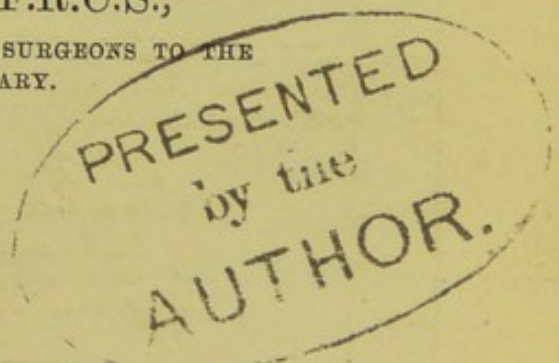

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A JACKSONIAN prizeman, in his essay on the shoulder-joint, has these concluding remarks, which will serve as an introduction to the subject upon which I am about to treat in this paper :—

"Throughout this essay I have been impressed, and that to a most forcible degree, with a void in our professional knowledge, or rather with a vivid sense of the suppression of a certain portion of it. I am sure every one must acknowledge the extreme value of a complete system of accurate hospital reports, and no one can, I think, reflect upon the vast quantity of valuable material that every hospital annually furnishes in the shape of cases, either illustrating the generic features of some peculiar class of diseases or injuries, or instructing us in some Truth by the elimination of some valuable and important Fact, without feeling how great a scandal results to us from our culpable neglect of this important advantage."

There are few surgeons engaged in hospital practice who would not, willingly, in accordance with sentiments thus expressed, keep a record of the cases which come before them in a twelve months' service if it were possible to do so readily, effectually, and without much trouble. Various plans have been attempted with this object, and many surgeons are still content with the ordinary hospital case-book, where it is assumed that every case is entered,

with all its details, by some clerk or dresser appointed for the purpose; and where it is also supposed that the cases are so accurately indexed as to be easily referred to. But it is well known that practically this is seldom the case, and the ward-book or note-book of a hospital very generally fails to represent the amount of work which has been done, or how it has been actually performed. In addition to this, the index itself is hardly ever ready for immediate reference. The index of a hospital case-book, to be of any real service, ought to be arranged on a duplicate plan; in one part the names of the patients should be entered in alphabetical order, and in the other portion the diseases or injuries should be similarly indexed. But how rarely is this the case; and how difficult is it, even where such a method has been commenced, to keep it up continuously over any long period. Thus it is we find nearly always, when we look at such case-books, that the first twenty, thirty, or it may be fifty, cases have been most carefully recorded, and perhaps about an equal number of pages thereby occupied; but after this the student or the writer has grown weary of his task, and, alas! many valuable cases have passed by unheeded; the period of real interest has elapsed, and facts which should have been noted at the moment have been at last hopelessly forgotten. Another great disadvantage connected with the use of the ordinary hospital case-book is that from its size it cannot be held in the hand at the bedside while the notes are written down, and they have to be made separately and transcribed afterwards, a double and needless labour; whereas, to be effective, our memoranda of cases should be made under circumstances similar to those with which we are instructed, in legal matters, to take notes of facts upon which we are subsequently to give evidence.

Professor Taylor says, "In order to render such notes or memoranda admissible, it is indispensably necessary that they should be taken on the spot, at the time the observations are made, or as soon afterwards as practicable;" and only such written evidence can be adduced in court as has been put down in writing by the witness, either at the moment when the facts occurred or within a very short time afterwards, so liable are we by the lapse of time

to have a confusion of ideas and misconceptions of events which have already passed. Hence it is a necessity in recording notes of cases in surgical practice that our observations should be jotted down as nearly as possible at the time they are made; and where we have to note a patient's own description of the signs and symptoms of his malady, we ought to use, as nearly as we can, the exact expressions which he employs in describing them, for these often convey, in a very faithful manner, the precise condition of his health. So that for a note-book to be of any use it should be portable and always at command, a circumstance which has not been lost sight of in the system I am about to explain.

As to the precise nature of the observations to be made and what we are to observe at the bedside of our patient, these may be regarded as matters susceptible of infinite variation, according to the tastes and objects of the observer; therefore to suggest only what is likely to be the most convenient method of recording our observations and subsequently arranging them is the chief purpose of my present communication.

I will now describe the plan I have adopted for nearly five years with my surgical cases in the Manchester Royal Infirmary, and then show the advantages of such a system, and point out a few alterations, of which it is susceptible. In the first place I may state that I follow a rule which was advocated many years since in the clinical wards of Guy's Hospital, viz. that notes of cases in hospital practice ought to be recorded on separate sheets of paper, written only on one side, that when completed they may be quickly arranged and re-arranged according to their nature, and thus, when any special classification has been finally decided upon, they can be put up and preserved in a pamphlet form; whereas if cases are first entered in bound books, even if the index be ever so perfect, it is impossible, unless the leaves of the book be cut asunder, to arrange the cases in groups for comparison and statistical deductions. Whereas with the plan I have followed, by using single folios or sheets of paper for each case, they can be at all times easily sorted according to any system or particular class of cases to which the subjects of them belong.

In our Infirmary, from the peculiar arrangements of the hospital, the patients of each surgeon are placed, not only in his own ward, but, when this is filled, the casualty cases are often scattered about in wards belonging to his colleagues, and it becomes necessary to have the case-papers arranged in such an order as to be easily accessible as we pass through the wards. I have had the case-papers printed on separate sheets of papers, such as are seen in figure No. 1 of the photo-lithographic plates, each about 8×5 inches in size. The paper is prepared so as to render it what is called indelible, so that it will take black lead very well, and it cannot be easily rubbed off. Ou the left-hand margin of each case-paper a vertical line is printed, and beyond this, to the left, three holes are punched, or black marks placed for them by the printer. Through the uppermost of these holes one of Mosley's binding studs or paper-holders is passed and the papers are screwed down, as a single file of, say, about thirty folios, and, to give firmness to it, as a sort of back or cover, I use a thin sheet of steel plate covered with leather and made rather larger than the papers, with a hole at its left-hand corner, through which the binding pin can be passed before the papers are placed in position, as shown in the figure, where it will also be seen that on the opposite side of the plate there is a place for a pencil, and, lower down, an elastic cord is fixed, which, when stretched across the mass of papers, will keep them in position, or when a few are lifted up will serve as a sort of marker to indicate the particular paper then under observation.

Each of these papers has printed upon it such headings as will enable us to take down notes in the ordinary way. The system being one of exclusion, several headings or items are put down, and those not present are struck out by the pencil. On the upper line a space is left for stating the nature of the case, but this heading or title I always leave to be filled up after the report itself is completed. This, it may be said, in many cases, would be a matter of prudence, as it is reserving the diagnosis until a late period in the treatment, and where a positive diagnosis is placed on record too early the motto *Litera scripta manet* may prove occasionally un-

pleasantly applicable! It will be noted that the name of the surgeon is to be entered, together with those of the house-surgeon for the time being and the dresser, as a means of future reference and identification. It will also be seen that the temperament or constitution of the patient is to be recorded by striking out from the words "robust," "healthy," "delicate," the two terms which are not suitable. Also with regard to the age and the social state of the patient, a similar principle is adopted, for any two of the words "single," "married," "widowed," must be erased according to circumstances.

And, lastly, with reference to that very important fact, so liable to be overlooked in surgical as well as medical cases, the state of the kidneys, as proved by the condition of the urine, provison has been made for noting this by placing in the last list of observations a query as to whether or not the urine contains sugar or albumen. If one of these substances be present the other word will be struck out, if neither is so marked out we conclude that both were found in the urine, and in the body of the notes such evidence ought to be recorded. If the urine be perfectly healthly the pencil is passed though both the words "sugar and albumen," as in fig. 2, and this is the more needful because in all surgical cases where operations are meditated it behoves the surgeon never to neglect to inquire into the condition of the kidney as evidenced by the state of the urine, and these items serve as a reminder in drawing up the notes. Below these headings we can insert, as shown in the same figure, such a special record of the case as the surgeon may be disposed to make, subject to this general observation that the great utility of recording cases in surgical practice has always seemed to me to consist, not so much in writing long essays, as in placing on record the salient and important points of each particular case. I have always taught that in taking notes of cases in surgical practice we may either make them so perfect that each case is a monograph in itself, or we may merely specify the leading points of interest, so that the cases, when compared together, will contrast or agree with each other the more conspicuously. Of course, to know how to select, in each instance,

the special signs and symptoms, and to exclude the others, is in itself a subject of experience and practice. It may seem oftentimes extremely difficult to do this well, but the student may be assisted in his attempts by reading beforehand the treatises on different subjects spread out so widely in our surgical literature, and by this means he will come to the bedside of the patient better prepared to seek for the important rather than the trivial features of each case, and this education or training of the mind is very profitable, for it enables us at once to go to the essential parts of any case each time we see it, and we are better able to compare and deduce conclusions from cases which we have previously observed, although, perhaps, from not going into each case to its very extremity we may here and there seem to omit to record some facts of slighter moment. It has, also, this advantage, that it renders our reports more brief and concise, and thus it makes them, on that account, more valuable. They are each of them more like surgical summaries than surgical dissertations, which we know are all that men engaged in busy practice can well afford the time to read.

If the paper used, as in fig. 1, be not large enough for the notes on any case, I then employ one of the "continued papers," shown in fig. 3, which are kept screwed down beneath the others upon the same covered board or plate ready for use. As beds are placed in surgical wards in hospitals, and occupied from time to time by a succession of different patients, it is not easy, if the ward is very large, for the surgeon in his daily visits to find immediately the case or cases in which he is most interested, mixed up, as they will be, with those belonging to other surgeons. But by a very easy arrangement we only require a few minutes once or twice a week, for unscrewing the papers from the plate, to rearrange them exactly in the order in which the beds will follow each other as we walk along the wards, say from left to right in some fixed course. And when a patient leaves the hospital, or is removed by any cause, we have only to unscrew the file, take off his paper, and, lifting up the others for a moment, place it at the bottom of the pile, where it will remain uutil it is removed for preservation, as I

will afterwards explain. By this method of having the case-papers belonging to the different patients placed in a certain order upon the file the papers can be turned over as we go through the list, and the risk of overlooking any case is greatly diminished, for it is very annoying in hospital practice to find, after we have left a ward and thought we had seen all our patients in it, that there are still one or two whom we had omitted, simply because our attention was not directed to them and the patients had been removed from their usual position in the ward or taken into some other part of the hospital. As soon, then, as the report of a case has come to an end, a note is made on the upper part of the paper, showing how the case has terminated, by striking out from the marks representing "accident patient," "out-patient," "home-patient," "cured," "died," and "P. M. X.," all the terms except the one corresponding to the event which has occurred. Thus, if a case has unfortunately come to a fatal termination, and a post-mortem examination has been made upon it, all the marks would be struck out except "died" and "P. M. X.," and the paper would then be taken off the file and put away. It will be observed, however, by looking at fig. 2, that I have been at considerable pains to abbreviate as far as possible the peculiar terms which I make use of in recording cases; in fact, I have continued for this purpose a sort of "long shorthand," as it has been styled.

My attention was first directed to the possibility of adopting this method of diminishing the labour of note-taking by several very interesting conversations I had with the late Mr. John Harland, of this city, well known for his great skill as a phonographic writer, and the very scientific manner in which he had investigated the whole subject of stenography from its earliest times. In the following letter, which I am glad to be able to embody in this paper, it will be seen that he has gone fully into a consideration of the possibility of so far shortening the words we use in writing, together with the employment of a few simple specific signs, that we can quickly construct a long shorthand, which can easily be written, and as easily deciphered, even by those unaccustomed to such manuscripts.

(*Copy of Mr. Harland's letter.*)

MOORFIELD COTTAGE;
September 7th, 1861.

My dear Sir,

Let me redeem my promise respecting abbreviations and contractions in writing. You will at once discern a great principle in the framework of words if I say that *consonants* are their *bones, vowels* their muscular fibre or *flesh*, stripped of which their bony structure will sufficiently identify them to the intelligent and educated eye. Thus, if I make a *'natomy* of your name, *dwrd Lnd*, I fancy you would still be recognised. But *giants* and *dwarfs* require a somewhat different treatment, so do *long* and *short* words. In oral note-taking the writer will find, if he aim at the *ipsissima verba* of the speaker, preacher, or lecturer, that the *short* words retard him more than the *long* ones. English is pre-eminently the language of short words in the degree to which it descends from the Old Saxon, but professional phraseology and nomenclatures are apt, from Greek or Latin origin, to run to *sesquipedalian* seed. It is clear, then, that short words should as much as possible be represented by the *simplest* marks, and, where practicable, by *only one* character. Words of five or six syllables occupy about as much time in uttering or writing as so many words of one syllable each, but the polysyllable can be represented by one or two of its *articulations*, or the joints of its head or tail, and thus time is saved by making a *part* stand for the *whole*.

Short statement of the recurring words.

|	=	the	my	=	many
o	,,	of	wd	,,	would
f	,,	for	shd	,,	should
fm	,,	from	sh	,,	shall
t	,,	that	mt	,,	might
w	,,	with	cd	,,	could
wh	,,	which	fd	,,	find or found
h	,,	have	gt	,,	great
x	,,	expect			

Terminations (-ing, -ment, -tion, &c.).

bg	=	being	represt	=	represent
hg	,,	having	natn	,,	nation
dog	,,	doing	repletn	,,	repletion
ligamt	,,	ligament	attritn	,,	attrition

The auxiliary verbs *be, have, do,* &c., with such verbs as *expect, make, form,* and the negative particle *not,* and the pronouns, personal and relative, &c., may be written by its initial letter, the whole combination being underscored to denote that it is not one word but many, *e. g.*, Isntbxttwhd = It is not to be expected that they would have done. WILL, should be written by the *w,* would by w. *Hcnxitbd* = He cannot expect (x) it to be done. Any stereotyped phrase might be put in such collocation. For *long* words five powers will separate or conjointly *shorten* them; —1. Initials; 2. Contraction to first syllables; 3. Medial elision: 4. Writing initials or first syllables with contracted terminations; and 5. By *leading consonants, e. g.*—

1. *HoC* = House of Commons; *MM* = Materia Medica.
2. *tre* = trephine; *steth* = stethoscope; *aus* = auscultation.
3. *confm* = confirm or conform; *ctl* = control.
4. *cqces* = consequences; *csdn* = consideration.
5. *kgm* = kingdom; *plt* = parliament; *rpve* = representative; *int-comcn* = intercommunication.

Opposites, as hot and cold, wet and dry, strong and feeble, high and low, &c., may be written by the first term and the short *and,* as, hot &, wet &, strong &, hi &.

Short *junctives* may often be omitted altogether, as "The patient, from having been in a highly febrile condition, sank into a state of coma"= *Patt, fmfebrile—coma.*

Hoping these jottings may serve you,

I am dear Sir,
Very truly yours,
J. HARLAND.

In the system which I have followed, the words which occur

very frequently, such as, *of*, *to*, *from*, *can*, *cannot*, and so forth, are represented by the ordinary logograms of Pitman's 'System of Phonography.' Such words as "right" or "left," "pulse," "tongue," "urine," "bowels," &c, are rendered by short prefixes, as R, L, P, T, U, B, &c., while the long words are contracted, as far as possible, upon Mr. Harland's principle, where he so ingeniously remarks that every word has its skeleton, which is, indeed, its true essence and will serve as its representative.

What is wanted for this purpose is some recognised system of symbols and abbreviations in recording surgical cases which, being generally adopted, shall save both time and space in transcribing the notes, and facilitate reference and comparison afterwards. This idea has been worked out very successfully in that truly scientific work of Donders, 'On the Anomalies of Accommodation and Refraction of the Eye,' translated in the volumes of the New Sydenham Society. A list is there given of certain pre-arranged signs and abbreviations, by which such technical words as hypermetropia and presbyopia are represented by one or more letters, as H and Pr, and with these, the numerals, and a few arithmetical signs, the varying conditions of the eye in many of its diseases can be indicated almost with the simplicity and accuracy of an algebraical formula, and comparisons drawn with the greatest readiness. Might not some plan of this kind be carried out in the records of general surgery?

Any one who will try, in ordinary writing, to follow out some method of this sort, will see very quickly what an immense saving of time results, and also, with regard to note-taking, a great saving of space in the paper used, the only condition being that in any long shorthand the abbreviations and the signs which we employ must be so positive and yet so simple that they can be read by others than the writer himself. Thus, any one who will try to read out the record of the case photographed in fig. 3 will find little difficulty in doing so. When given *in extenso*, it would run as follows:*

* The words and syllables in italics correspond to the signs, abbreviations, or elisions, in the notes.

"Feb*ruary* 6th.—Last evening *was* cleaning *a three*-story window, *and* fell b*ack*wards, *and* has severe injury *of the right* hip *and left* shoulder. *She* fell upon *the* yard pavement *with great* force. *She was* slightly insensible *from* concussion. *She* has dislocated *the right* femur on *to the* dorsum ilii, *but not* much inversion *of the* foot; very weak *and* faint. *To* have stimulants. *Fomentations to* shoulder, &c.

"7th.—Under chlor*o*form *I* reduced *it* easily by *the* flexion method, *and the* bone went b*ack into the* acetab*ulum* more *with a* grating noise than *with an* audible snap. Length, position, and motion, instantly restored. Mr. Dumville *was* present.

"8th.—D*oing* w*ell.*

"10th.—P*ulse* w*eak;* gr*eat* debility. Mistura Quinæ Acida c. Tincturâ Camphoræ compositâ. Much perspirat*ion.*

"13th—*Can* move r*ight* thigh well; contusion on shoulder d*oing* w*ell,* but peculiar loss *of* sensation along line *of left* ulnar n*erve in the* hand. *Can* rest weight on r*ight* leg.

"20th.—*In all* ways d*oing* w*ell.*

"March 6th.—*Can* now walk. *To be* out-p*atient.*"

When the reports are completed and the case-papers of each filled up they are removed from the file and placed at first in large envelopes, each of which will hold twenty or thirty, and in this way they are carried away from the ward of the hospital into the library or study, to be placed in order and classified. I adopt at first an alphabetical order, guided only by the name of the patient, and, as can be well understood, such names as "Smith," "Jones," and "Robinson," will always occupy a very large proportion of such a collection. In putting them in this alphabetical form I use the spring-backed books sold by Messrs. De La Rue and Co. and depicted in fig. 4, and taking, for example, ten case papers in which the names of the patients begin with the letter "B," I arrange them in alphabetical order as far as the succeeding letters in each name are concerned, thus, "Ball, Bott, Brett," &c., and after this according to the Christian name, and where there are two of exactly the same name and surname preference is given to the younger of the two, and then to the one who was first admitted

into the hospital, and this being done they are retained in this position by the spring-backed book.

Each time some case-papers beginning with the same letter are to be added to those already in the book I place them on the table in alphabetical order, say ten more such papers, then opening the book in the usual way (see fig. 4) so as to separate the papers slightly, I pass each into its proper place, the name Bate, for example, being put between Ball and Bott, pushing each paper between the others in the book as far as it will go without opening the spring hinge too widely, and this process is repeated until all the ten fresh papers have been placed between the others; then holding the twenty papers between the thumb and finger of the right hand, I open the back of the book, set all free, and gently striking the bundle of papers on their edges on the table as we put cards together in a pack to make them square, I have them safely arranged in proper order. Once more opening the empty book, I reintroduce the twenty in the place of the ten case-papers, in the exact order of the alphabet, as I have explained. This simple proceeding, very easy to do but tedious to describe, must be repeated as often as necessary; and since the reports of patients whose names begin with some letters of the alphabet, more particularly H and S, make up a greater thickness of paper than one spring-backed book will contain, I divide such classes into two or more smaller portions, according to the vowels which follow the initial letter. Thus, in one book I should put all names beginning with the letter "H" followed by "a," "e," "i," and in another book all those beginning with "H" succeeded by the vowels "o" and "u." In this way it is my constant endeavour under all the arrangements to have the case-papers placed in exact alphabetical order, having regard only in the first instance to the names of the patients. When any case has been recently reported, and the name of the patient is fresh in the memory, this plan is the best, but when some time has elapsed since the report was made we must have recourse to a system of classification founded on the nature of the disease or injury which will form the title or heading of the paper. With this object I use large envelopes for collecting

the case-papers, and I classify them according to eight chief divisions. To do this I take the spring-backed book containing, for example, the cases beginning with the letter "B;" I open it so as to dislodge the papers, place a pile of them on the table, and running superficially through the notes on each case in succession I can quickly make out its general characters and determine what title to give it. Having decided on the precise nature of the case, I put down on the line at the heading of the paper in one instance "Fract. thigh, simple, R;" in another "Hernia, femoral, L;" in another "Abscess, psoas, L," and so on, and these headings or short titles I generally write with indelible blue ink, so as the better to attract attention in future reference. The whole file of case-papers beginning with "B" being thus gone over, I proceed next to sort them into the classes to which they belong.

I will suppose for the sake of illustration I have eight large envelopes, each capable of holding twenty or thirty case-papers, and numbered 1 to 8 consecutively, and labelled to correspond with the classes of diseases or injuries which I have designated. As I look once more over the file of papers with the blue heading on each there is no difficulty in distributing in a very short time 100 such papers among these eight classes, taking care, as they are turned over face downwards upon the table and arranged in heaps, that each is preserved in its previous alphabetical order. Then each bundle is to be put into its proper envelope, and as soon as I find that I have a sufficient number of cases in any particular class, such as abscess, fracture, or the like, I remove them from the envelope, screw them together, so as to make them into a separate pamphlet or book, in which the same alphabetical order of names will be preserved, and if, after an interval of several months, or even two or three years, I should desire to find out some case of hernia which had been operated on at this distance of time, supposing I only could recollect the name of the patient, I could still discover the report of the case with the greatest certainty by turning to the envelope containing hernia cases, and the alphabetical order of the report would lead me to the one I sought for. Or, in another way, if I wished to find out the name of some

patient who had suffered from some peculiar tumour or undergone some special operation, if I could tell the nature of it I could always bring myself to the individual case by looking through all the other cases of a similar kind which I had had, and which most probably would not be numerous. In this way I always have at hand a double clue to the cases I have on record, viz. an alphabetical one, which has reference only to the names of the patients, and an analytical one, which, like the subject-catalogue of a library, deals with the classification of the cases according to the nature of the diseases. The eight classes which I have employed are susceptible of still further extension, for any one of them can be divided into as many sub-classes as may be desirable, provided that in each sub-class the alphabetical order of the whole be not disturbed. They are as follow :

Class 1.—Contusions, wounds, limb amputations, ulcers, &c.

Class 2.—Herniæ, tumours, abscesses, fistulæ, &c.

Class 3.—Injuries and diseases of the joints.

Class 4.—Dislocations and fractures.

Class 5.—Injuries and diseases of the arteries, veins, and vascular system.

Class 6.—Injuries and diseases of the spinal cord, brain, and nervous system.

Class 7.—Injuries and diseases of the genito-urinary organs.

Class 8.—Injuries and diseases of the ear, nose, mouth, palate, larynx, œsophagus, and rectum.

It will be seen that the last class would require the greatest subdivision, and, for this purpose, it would be marked off as, Class 8, *a* for the eye, *b* for the ear, *c* for the nose, *d* for the mouth, &c. In this way it will be obvious that a system of recording cases can be worked out which is almost indefinitely expansible, for as the class or classes of cases go on increasing in numbers, so it is possible to divide them into more exact and well-defined groups. Take, for example, the cases of fractures; they may first be classified under two heads, "simple" and "compound," each class having reference to particular bones. Then they may be arranged according to the sides of the body on which they occur, so as to

show (as, indeed, has been shown by reference to statistics) how much more liable the right side is to fracture than the left, although it is generally the stronger part. Then they might be placed according to their immediate causes, as to their being the result of direct or indirect violence; they could also be classed in reference to the predisposing causes, the season of the year and the like, or the condition of the patient at the time of the receipt of the injury, for it is notorious that in hospital practice a very large number of cases of fracture occur in those who have recently been worshipping too freely at the shrine of Bacchus! In all attempts, however, at reporting cases in hospital practice it must be with the understanding that every case which occurs shall be placed on record, the most apparently trivial as well as the most evidently severe, since any case, when admitted, may seem to be one of very slight injury and yet be followed after a shorter or longer interval by serious symptoms, when perhaps it may be too late to obtain an insight into its true origin, which the early history of it alone could have supplied. And, again, with regard to the statistics which may be fairly drawn from an extensive record of surgical cases, it is extremely important to include in them the slight as well as the severe cases, otherwise it may appear in a given number of instances as if such and such hospitals had only the most important or, as they are called, the capital operations to deal with, whereas others of minor importance may also have been under treatment, so that unless every case is actually noted, after the end of a certain period, a very delusive estimate will be obtained of the amount of work done in any given institution. The particular method of classifying cases which I have here suggested may be open to some objections, but the useful portion of my scheme consists principally in the ready way in which cases can be roughly put together, and yet be as quickly transposed and rearranged for reference. In the first instance it is best to use only the envelopes or the spring-backed books for holding the classes of cases. After a certain time, say at the end of one year or five years, when a particular epoch in the surgical history of a hospital has been reached, we can take the various groups of cases and bind them up

by one or two additional screw-pins, and thick paper as a back and cover, so as to have small volumes of cases which can still be opened out at any time for redistribution and enlargement. One difficulty, however, which may be raised to the system I now propose is that in hospital practice it often happens that the same patient is admitted while suffering from more than one kind of injury or disease. For instance, a man may come in with a compound fracture of the leg and at the same time be suffering from concussiou of the brain as the consequence of the same accident; and in placing such a case on record the question arises under which of these classes is he to be put—"injury to the brain" for his concussion, or among the class of "injuries to the bones" for the fracture of his leg? In the ordinarily bound case-book, with the double index, to which I have already referred, this man's case would appear in three places; it would be indexed alphabetically for the name, and it would be entered twice, with the same page of reference or nearly so, first, under the title "Brain, concussion;" and, secondly, as "Fracture, compound, leg." The way in which I correct this is, when I make up the case-paper and place on it the exact heading I take one or more of the "continued papers" and write on them the name of the patient and other particulars, as is shown in fig. 3, which refers to the case of a man who suffered from compound fracture of the forearm requiring amputation, and also from fracture of the ribs on the opposite side, which led to pleurisy and sero-purulent effusion, of which he died, and this, being a complicated case, would require under any system of reporting more than one mode of indexing. I therefore put on the extra or second paper the words "*Vide* the same case. Limb amputation for compound fracture of forearm," and in this way the two records are linked together; the same name appears twice in the analytical classes, in one as amputation of the forearm, in the other as fracture of the ribs, and according to which of the two injuries has been the more severe or the more prolonged, in that class we shall have to seek for the full description of the symptoms and changes which have occurred. But this arrangement may suggest the possibility of an error in the statistical returns which cases thus

recorded would supply, by one patient being reckoned twice over, and the reported number of patients under treatment being thereby augmented. It might be said that in this particular case, if the contents of the different classes of cases were taken as the aggregate numerical return of the whole hospital, so many in Class I and so many in Class IV, the patient whom I have entered as having received this double injury would be enumerated once amongst the limb amputations and once as a case of fracture of the ribs. This, however, could not occur if, when it is desired to sum up the total number of patients which have been treated in the hospital in a given time, the returns are made only from the papers which have the full particulars upon them, namely, name, age, social position, &c., and no notice be taken of the "continued papers," which in such instances as I have described will serve merely as guides and indices for facility of reference. I am aware that some exception may be taken to the general arrangement which I have given of only eight classes for all varieties of surgical cases. In the extremely elaborate classification of surgical diseases and injuries which has been attempted at some hospitals, the divisions of cases, with all their variations of generic and specific distinction, are multiplied to such an extent as to render the classification difficult of application by its very prolixity. To avoid this, and for all really practical purposes, it has seemed to me that it is not desirable to have too many classes, but rather a few well-marked ones with minor divisions. Accordingly I have grouped together, for example, in the last class, disease of those regions which are too often the habitats of the specialist—the eye, the ear, the larynx, the rectum, &c., and I have not reserved any special class for diseases of general or constitutional seat, as syphilis, pyæmia, tetanus, &c., which must fall in with the other cases representing more positively local ailments. As I have already said, this arrangement need not be strictly adhered to, for it can be easily expanded into any number of genera, species, varieties, or sub-varieties. To sum up the distinctive characteristics of this method of reporting cases, it may be said that they are four in number.

The cases are written out on separate sheets of paper, with indelible ink, and on a uniform plan.

The papers are kept while in use in a certain order corresponding to the position of the beds in each ward, so that none can be overlooked.

The notes themselves are written down in as concise a manner as possible, with abbreviations and symbols easily recognisable.

The case papers thus complete are classified, first alphabetically for the names of the patients, and then, this order being still preserved, according to the injuries or diseases from which they have suffered.

In conclusion, I trust it will be found that the suggestions I have made, subject, of course, to such modifications in detail as may occur to each individual observer, will tend to promote the adoption of a more systematic and ready method than we have hitherto practised of recording surgical cases in hospital practice.

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