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The Five Laws of Library Science.
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Madras Library Association, 1931.
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CHAPTER VI
THE FOURTH LAW

We have seen in the last five chapters that the main concern of the first three Laws of Library Science is to get the books of the library used as fully and by as many persons as possible. We have also seen that, however axiomatic those laws appear to be, they have really begun to assert themselves as ruling concepts only during the last few decades. We further examined some of their implications and described the changes they are bringing about in the outlook of libraries and in the various aspects of library policy and administration.

We shall see in this chapter what further light is thrown on some of these problems by the Fourth Law of Library Science. This law makes its approach from the side of the readers as was the case with the Second Law. Perhaps it may even be said that the interest of the Fourth Law almost completely centres round the readers. Taking for granted that BOOKS ARE FOR USE, that EVERY READER SHOULD BE SERVED HIS OR HER BOOK and that EVERY BOOK SHOULD BE HELPED TO FIND ITS READER, it proceeds to fashion the library administration accordingly. In company with the Fifth Law, it concerns itself with the situation that should arise as the requirements of the first three laws come to be increasingly fulfilled. In dealing with the new problems of such a situation, it introduces the element of time and concentrates its attention entirely on the time-aspect of the problem.

SAVE THE TIME OF THE READER—that is the Fourth Law of Library Science. Perhaps this law is not so self-evident as the others. None the less, it has been responsible for many reforms in library administration and has a great potentiality for effecting many more reforms in the future. Perhaps the most convenient method of studying the consequences of this law will be to follow a reader from the moment he enters the library to the moment he leaves it, critically examining each process, which he has to go through, with an eye to the economy of time that can be effected at each stage.

OPEN ACCESS, vs. "CLOSED" SYSTEM

Perhaps the first thing that a reader does, on entering the library, is to discharge the used up books. But it will be convenient to postpone the consideration of this process and take it up along with the method of charging, as the details of the two operations are, by their nature, interdependent. Hence, the main process that should be first studied in the light of the Fourth Law is the choice of books. In a 'closed' library, this has to be done entirely with the aid of the catalogue. The catalogue of a growing library is either of the card

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form or of the paste-down form. If it is of the latter form, even in a small library like the Madras University Library with but 70,000 books, the catalogue runs through fourteen folio-volumes. In the British Museum Library, the paste-down "general catalogue now fills over 1,000 volumes". A common heading like 'Smith' takes a volume all for itself. Further the inevitable occurrence of certain general headings, such as 'Academies' and 'Periodicals' add further complications. A good deal of time is naturally wasted in hunting out for the required title in such a labyrinth of entries. Having got them, one has to write them out with great accuracy on separate slips and hand the slips over to the man behind the barrier. Then follows the harassing interval of waiting—for several minutes in small libraries and even for hours in large ones. It is not unusual for readers of the British Museum Library to apply for their books in the forenoon and call for them after lunch. Some readers with forethought would also send their slips overnight to save time on the next day.

If the library is popular, the loss of time due to the search for entries and to the waiting at the counter may recur several times before the right book is got. The recurrence may be due to many causes. After some time, the slip may be returned with the endorsement "entry incorrect". The spelling of some essential part of the entry may be wrong. This would render the tracing of the book impracticable. The group of figures, constituting the press-mark or call number as it is called, might have been wrongly copied. Substitution of a small letter for a capital or omission of a dot or a comma might make all the difference. Or the slip may come back with the endorsement "on loan" or "engaged". Then the old process of selection and waiting will have to be gone through once again. Before the Madras University Library changed to 'open access', several cases used to occur almost every day when the process had to be repeated half a dozen times before a reader got some book. Again, when the book is actually produced, it may turn out to be spurious or, for other reasons, unsuitable to the reader. The catalogue entry might not have given a clear enough indication of the nature of the book. That means the repetition of the whole process over again. These features would "make the selection of books a heart-break and a labour tainted with disgust".

The average amount of time that a reader had thus to waste at the counter in the Madras University Library in 1928 (just before the open access system was introduced) was about half an hour. The colossal nature of this waste can be realised if we integrate over a full year the amount of time thus wasted by the community as a whole.

(1) RAWLINGS (Gertrude Berford): The British Museum Library, p. 164.

(1) BROWN (James Duff): A Plea for Liberty, reprinted in STEWART (J. D.) and others: Open Access Libraries, p. 218.
Let us take as a convenient unit of measure one person working for one hour. Let us call this a ‘Man-hour’. Now, the average number of visitors in the library was 200 per day. Thus, 100 man-hours were wasted per day or 36,500 man-hours per annum. To realise its economic significance, we must convert this into money. A salary of Rs. 75 per manper would correspond to half a rupee per man-hour. Even with this low equivalent, the wastage for which the ‘closed system’ of the Madras University Library was responsible in 1928 amounted to nearly Rs. 18,250 per annum. In discussing the profit and loss account of the open access system, one should give due weight to this aspect of the matter. The Fourth Law would insist that, in deciding large questions of policy, such as open access vs. ‘closed’ system, the spirit of the modern method of cost-accounting should be adopted and long, broad and full views should be taken, dealing with the community and the library as a whole. An alarmist attitude should not be developed by isolating the probable or actual loss of a few volumes in a year or by taking any other partial view of the matter.

In modern communities, such as those of America and England for whom time is money and money is time, the slogan of the Fourth Law—SAVE THE TIME OF THE READER—seems to have produced a profound impression. Further, the recent tendencies in the evolution of business methods and the rapid diffusion of the ‘cost-accounting’ consciousness not only among the leaders but even among the masses have led those communities to conclude that the balance of advantage is decidedly in favour of the open access system. In this system, the wastage due to waiting at the counter is eliminated fully and the wastage due to wading through cumbersome catalogues is reduced to a minimum and may even be altogether unnecessary for many ordinary readers.

Historically, an attempt was first made to eliminate the loss of time due to books being on loan. This was done by the ingenious invention of the ‘indicator system’. “A library indicator, as its name implies, is a device for indicating or registering information about books. The information usually conveyed to the public is some kind of indication of the presence or absence of books, and the methods of accomplishing this almost invariably take the form of displayed numbers, qualified in such a way as to indicate books in and out”. Several patterns of indicators were invented from 1870 onwards. In all cases, a large run of counter space had to be given up for accommodating these mechanical contrivances and this created new problems. But as the Fourth Law gradually asserted itself still further and insisted that the time wasted in tracing the titles in catalogues and waiting thereafter for the books to be brought by

The Fourth Law

Attendants should also be saved, the indicators were slowly given up and the open access system came to be regarded as the only satisfactory device to save the time of the reader. Thus, the claims of the open access system, already advocated by the Second and the Third Laws, came to be reinforced by the Fourth Law, on grounds of national economy.

Shelf-Arrangement

The interest of the Fourth Law is not exhausted however with the introduction of open access. It has an equal interest in reforming the shelf-arrangement. In an open access library, the nature of the shelf-arrangement can make or mar the mission of the Fourth Law. One old fashioned method which still seems to persist in some of our libraries is that of alphabetic arrangement by the authors. But in the majority of cases, the interest of readers goes by the subject rather than by the author. Even in literature, the authors of the biographies and the critical works are not as important as the author forming the subject of biography or criticism.

Let us now follow our reader, for whom the Fourth Law has secured admission into the stack-room and let us assume that he is interested in Wave Mechanics and that he desires to see as many books as possible on that subject. If the library is an alphabetically arranged one, he will have to browse from A to Z to spot out his books as there is a nearly equal chance for each letter of the alphabet to be the initial letter of the names of the authors of the books on that subject. For example, here are some titles on Wave Mechanics, that the library may possess:

- Birnwhistle (George): The New Quantum Mechanics.
- Bough (N. M.): The Evolution and Development of the Quantum Theory.
- Born (Max): Elementare Quanten Mechanik.
- De Broglie (Louis): La Mecanique Ondulatoire.
- Fowler (R. H.): The Passage of Electrons through Surface and Surface Films.
- Rice (James): Intro. to Statistical Mechanics.
- Schrodinger (E.): Four lectures on Wave Mechanics.

Let us look at the length of shelves his eyes should travel. Assuming that twelve volumes will, on an average, go into a foot, his eyes will have to run through the backs of a little over a mile of books, even in a library of 70,000 volumes. Just imagine the time that will be involved in this process. On the other hand, suppose that the books of the library are arranged in a minutely classified manner, on a subject basis. Then, Wave-Mechanics will be one of the ultimate classes and his eyes will have to run only through the backs of a foot or two of books. In other words, he could see them all almost at a glance. This has led the Fourth Law.
to press the claims of the classified mode of arrangement. We have seen that the Second and Third Laws also prefer such an arrangement. Each law approaches the problem of shelf-arrangement from a different angle; but, fortunately, their conclusions are all concurrent.

The Fourth Law would throw some further light on the arrangement. In the first place, it would recommend that the classes accommodated in adjacent shelves should have the greatest possible affinity. A reader that is primarily interested in philosophy is sure to have some interest in religion and psychology. Hence, to SAVE THE TIME OF THAT CLASS OF READERS, it would be advisable to put religion on one side of philosophy and psychology on its other side. In a similar manner, the Fourth Law must be constantly borne in mind in fixing the relative position of the other classes as well.

Apart from relative position, the absolute position of the classes also will have to be determined in conformity to the Fourth Law. The class of books that is most in demand should be put on the nearest shelves of the stack-room and the class that is least popular should, ordinarily, be put at the farthest end. It is known for example that for every geological book issued, more than a hundred books are issued in literature in the Madras University Library. The accompanying histogram showing the relative popularity of different classes of subjects in the Madras University Library may throw some light on the importance of this aspect of shelf-arrangement. It can be seen that about a third of the issues of that Library is from the literature class. Then, in order to save the time of the greatest number of readers, that library should accommodate its literature class close to the

![Histogram showing the number of volumes issued in different subjects in 1927.](image)
entrance of the stack-room. Again, the books of ready reference such as directories, yearbooks, dictionarvies and encyclopaedias should be placed as close to the counter as possible so that no time need be wasted by readers in getting at them. Although this recommendation of the Fourth Law may look too obvious, it may be interesting to record that, not long ago, a big library used to house its set of Encyclopaedia Britannica in the third tier. Recent additions are generally in great demand. Hence, for the sake of the Fourth Law, it would be necessary to put them all together near the counter for a definite period of time. We saw, in the last chapter, the usefulness of such a practice in the light of the Third Law as well.

STACK-ROOM GUIDES

Assuming that the reader is admitted into the stack-room and that the relative and absolute arrangement of books is in accordance with the requirements of the Fourth Law, he will be naturally bewitched by the array of books with which he is surrounded and may have to waste much time before arriving at the shelves containing the class of books required by him. To save the time of the reader at this stage, the library should provide an efficient system of guides in the stack-room.

It may be useful to place at the entrance of the stack-room a large bold plan of that room, showing the disposition of the book-racks and the classes of books contained in them. In addition each row
of book-racks should be furnished at each end with a "signal" guide on which the classes accommodated in the row are indicated in a manner calculated to catch the eye of the reader. In the Madras University Library they are inserted in rectangular wooden frames $18^\circ \times 6^\circ$ projecting from the side of the end rack of the row as shown in the accompanying picture. Some libraries, that keep open after sunset, use illuminated signal guides.

In addition to this, every shelf-plank should also be provided with the necessary number of shelf-labels. The number of such shelf-labels is likely to be very great. In the Madras University Library, the number of shelf-planks in use, at present, is about 3,500. They are furnished with as many as 6,000 shelf-labels. The proper maintenance of such a large number of labels is a problem in itself. The serious nature of the problem will be brought out fully when we view it in the light of the Fifth Law. It is enough to say here that so many are necessary to SAVE THE TIME OF THE READER effectively. At the same time, however, it must be said that shelf labelling should not be overdone. Too many of them may cause confusion to the reader. Most of the shelves may take two labels, while a few may take one and a few others three. There should not be need for more than three per plank. The Madras University Library generally uses spoiled catalogue cards for the purpose. They are cut into labels $5^\circ \times 5\frac{1}{8}^\circ$. Each card gives four
such labels. The name of the ultimate class of books just above the label is written on it in bold detached library hand of half inch size. The number of the class is also prefixed whenever there is space.

Thus, we shall imagine our reader first consulting the plan at the entrance of the stack-room. Then, with the aid of the signal guides greeting him at the end of each gangway, he will easily enter that particular gangway which contains the subject in which he is interested. As he passes along the gangway, he will run his eyes through the shelf-labels until he comes to the shelf containing the ultimate class in which his books are likely to be. Then he will examine the collection in that ultimate class and make his selection. If, on the other hand, he has already made up his mind about the particular book he wants, there must be some further help to enable him to pick out that particular book without loss of time. In such a case, the most expeditious method of his getting the book will be to find out, beforehand, the exact call number of the book from the catalogue cabinet. Assuming that he will do this, it can be easily seen that there should be further guides showing the call number of each book. They should consist of tags or labels affixed to the backs of books.

These tags should be applied and the call number written on them, when the book is being catalogued. It is very difficult to get a tag that will firmly stick to the back of the book for an appreciable time. Even if it does, it gets dirty in course of time and the letters become indistinct. It has been found to be ultimately more economical to buy specially made tags, than for each library to prepare its own tags in its own crude way. Dennison's white circular tags, number A-144, which are coated with thin gum, have been found to be most serviceable. They cost about one rupee per thousand. They are available at Libraco Ltd., 62, Cannon St., London, E. C. 4. The durability of these tags can be increased by applying paper varnish to them after they are fixed. Even then, they should be replaced periodically and systematically. There is nothing more offensive to the eye than a dirty half-torn tag disfiguring the back of a book. It further produces an impression of slovenliness which is inimical to the bright business-like look that a library should present to the reader. In the Madras University Library which issues about one hundred and fifty thousand books per annum, it has been found necessary to set apart an attendant for about ten hours in the week for renewing the tags. So much of an attendant's time has to be spent, in order to saving the time of the reader at this stage. While it may look like a great expense when considered from the isolated library-point-of-view, it can be seen to be really economical from the larger community-point-of-view.

Before leaving this question, it may be well to say that the attractiveness of the shelf can be considerably increased by fixing the tags in such
a way that they are all in a line when the books stand erect on the shelves. Apart from the look of slovenliness, it will be tiring for the reader's eyes if the tags appear at all heights indiscriminately. Experience has shown that the most suitable standard position for the tag is one inch from the bottom of the book.

The labour involved in the frequent repasting of the tags can be avoided by having the call number printed directly on the back of the book. For this, ordinary binders' gold lettering method should be adopted. It may be advantageous to train a library attendant to do the lettering in the library premises. If it is not practicable, the books may be sent to the binder to be numbered.

Details like these may appear to be trivial to those who have had no inside experience of a library. With the limited experience of handling a few stray books in his private study, the layman cannot easily imagine what proportions these apparently small matters assume in a growing library dealing with thousands of volumes and thousands of readers. Hence, in a country like ours with hardly any modern library tradition, the handicaps of the librarian are likely to be greatly increased by a lack of appreciation of the magnitude of the problem on the part of others. But the librarian has to devote his thought to such problems and solve them so as to **SAVE THE TIME OF THE READER.**

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**Catalogue**

Another factor that may lead the reader to waste his time in getting his materials is due to the inevitable composite nature of most of the books. All books are not monographs. Very often an excellent account of a specified topic may occur in a chapter or even in a few pages of a book whose main interest may be some other topic or topics. A careful student would desire to know all the resources of the library on his subject of study, whether it be a monograph or a portion of a bigger book. If a catalogue is made up only of a single entry for each book and makes no attempt whatever to give analytic cross-references, the only course open to the reader is to examine every book to see if it gives any information on the subject of his study.

Suppose, for example, that the reader is interested in critical literature dealing with Matthew Arnold. There may be about half a dozen books in the library dealing exclusively with this subject and they can be found together on the shelves. But, a patient search by the reader will disclose to him that the library possesses also many other materials on the subject. Here are some items that he may find to be useful:

ARNOLD (M.): Poems, pp. 4-16.
PALGRAVE (P. T.), Landscape in Poetry, pp. 257-278.
HUTTON (R. H.), Literary Essays, pp. 310-360.
KER (W. P.), The Art of Poetry, pp. 139-160.
a thorough manner, there is no doubt that he will require many hours and perhaps days to prepare the above list.

Let us take another example. A few weeks back an eminent research worker felt the need to consult all the literature that our library had on the Zeeman Effect. We had only four books exclusively devoted to the subject and hence they were the only books that were found on the shelf having the shelf-label "Zeeman Effect". But, our catalogue contained the following seventeen references.

KONEN (H.), Licht und Materie, pp. 360-388.
WATTS (W. M.), Study of Spectrum Analysis, pp. 167-173.
BALLY (E. C. C.), Spectroscopy, pp. 329-358.
CAMPBELL (N. R.), Series Spectra, pp. 73-78.
JOHNSON (R. C.), Spectra, pp. 27-30.
KAYSER (H.), Handbuch der Spectroskopie, B. 2, pp. 611-672.
BACK (N.), Handbuch der Experimental Physik, B. 22, pp. 1-189.
VAN VLECK (J. H.), Quantum Principles, pp. 239-257.
HUND (F.), Linien-spektren, pp. 78-111: 201-207.
ABRAHAM (M.), Theorie der Elektrizität, B. 2, pp. 71-79.
STONER (E. C.), Magnetism and Atomic Structure, pp. 212-244.
SOMMERFELD (A.), Atomic Structure and Spectral Lines, pp. 204-303 and 384-403.
BHRTWISTLE (C.), Quantum Theory, pp. 112-118.
ANDRADE (E. N. da C.), Structure of the Atom, pp. 501-581.

When he was shown these seventeen red cards he was immensely delighted and he said that we had saved much of his time by the preparation of these cross-reference cards.
This brings us to the economic aspect of the cross-referencing work. Such analytic cross-reference cards can be prepared only if the library has an adequate technical staff with high academic qualifications and thorough professional training. It has been found from four years' experience that a full-time staff of five is necessary to deal with the annual accessions of a library, adding 6,000 volumes a year and that a volume requires six cards on an average. Roughly speaking this amounts to an average cost of about ten annas per volume.

To decide whether it is wise to spend this amount and to maintain such a staff, the Fourth Law would urge the library authorities to view it from a different angle—from the national angle so to speak. If it is not done, what is the wastage that would be involved in our talented high-paid research worker spending some hours of his time in the search? Further if the work is not done once for all and in a thorough manner by the library staff, in the days and years to come the time of many such persons interested in Zeeman Effect will have to be wasted in going through the same process of search. This would mean repeated wastage not only of the nation's money but also of its best brains. Research should not be allowed to degenerate into a search of this type.

All the countries of the world are really competitors in matters of research; and the workers in any branch of research in our country should not be subjected to avoidable handicaps. Their precious time should be saved as much as possible by the libraries undertaking to do thorough cross-referencing work.

Similarly, consider the national wastage that would be involved in professor after professor and student after student—and that from year to year—pulling out book after book from the large literature collection of the library to make out an exhaustive list of its resources on Matthew Arnold. Is it an economical way of utilising the brain power and time of erudite professors and students? The Fourth Law would ask, "Is it not more economical from the national point of view, to introduce a division of labour here, by setting apart a few persons to prepare such exhaustive lists in all possible subjects?" Such work once done will be of use for ever.

Bibliography

While examining this aspect of the Fourth Law, it may be well to raise the issue, "Is the cross-referencing to be confined to regular books or is it to be extended to periodicals also?" There is no doubt that the contents of periodicals should be indexed in a classified manner to SAVE THE TIME OF THE READER.

The number of periodicals in the field runs to thousands, (60,000 is one of the estimates). Even the Madras University Library gets about a thousand of them. The Yale University Library gets as many as 11,500. The articles on any topic get widely
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scattered in many of them. The time involved in listing them together is bound to be very large. It is not proper to divert the time of busy researchers to the task of listing them. On the other hand, it would be more economical, from the point of view of the community as a whole, to get it done by a special staff and make it available to all researchers. The Fourth Law would in fact go to the extent of lifting it, not only from the sphere of individual workers, but also from that of individual libraries and even of individual nations and would assign it to international organisations.

Let us take for example a recent subject like ‘Raman Effect’. Since Sir C. V. Raman announced his discovery of a new radiation in his historic inaugural address before the South Indian Science Association at Bangalore on the 16th March, 1928, many physicists all over the world have turned their attention to this new phenomenon—its elucidation and its applications—and the periodicals in Physics are being flooded with the results of the work done on and with the aid of the Raman Effect. Both to avoid unnecessary duplication of work and to cut out new lines, it is desirable that all the results are rendered easily available to all the workers in the field. The publication of a bibliography of Raman Effect as Part IV of the IV Volume and in pp. 256-283 of the V volume of the Indian Journal of Physics, listing about 550 titles, has resulted in a substantial economy of time. In deference to the Fourth Law, many such special bibliographies are being published. Here are a few examples:—

International Catalogue of Scientific Literature.

Revue Semestrielle des publications mathématiques.

Science Abstracts.

Chemical Abstracts together with the cumulative indexes.

Bibliography of American Natural History.

Bibliographia Genetica.

The Annual Bibliography of English Language and Literature.

Orientalische Bibliographie.

Religionsgeschichtliche Bibliographie.

Bibliographie methodique du pragmatisme americain.

Psychological Abstracts.

Bibliographical Bulletin of International Affairs.

Bibliographie der Socialwissenschaften.

Index to Legal Periodicals.

A detailed account of such bibliographies published so as to SAVE THE TIME OF THE READER will be found in Chapters III to XI of the book entitled ‘Bibliography, practical, enumerative, historical’ by Henry Bartlett Van Hoesen.
essential to SAVE THE TIME OF THE READER in getting himself acquainted with their correct use. Even after the initiation, most readers will stand in need of the bibliographical service of the Reference Staff. With their constant practice, the Reference Staff are sure to acquire not only greater precision but also a much higher speed than the readers in handling the bibliographical apparatus. Again in spite of the initiation, the reader cannot become as familiar as the staff with the order in which the books are arranged. The librarian’s intimate acquaintance with classification and cataloguing gives him an immense advantage over the reader in arriving quickly at the desired book or information. He knows the order in which the books fall. He knows the ins and outs of his catalogue. He can wield all kinds of indexes and catalogues with greater ease and speed. Hence the Fourth Law also would join hands with the first three Laws in pressing the need for an adequate Reference Staff in all libraries. The money spent on such a staff comes back to the nation in ever-increasing measure in the saving of the precious time of its best brains. That this is an economically sound proposition can be inferred from the fact that commercial and business libraries, maintained by business houses ungrudgingly pay for an adequate Reference Staff. They know the economic value of time. But academic libraries seem to be lacking in their power to perceive the value of time and are hence halting in appreciating the need for such a staff.

From the point of view of the Fourth Law, the work of the Reference Staff falls into two divisions: (1) Ready Reference Work, and (2) Reference Work proper. For purposes of Ready Reference Work, libraries that have faith in the Fourth Law maintain information desks and place them in a prominent position so as to attract the attention of the reader early in his transactions. The problems that frequently fall within the sphere of the persons in charge of the information desk are—

(i) the direction of the readers to the different parts of the library and to the appropriate members of the Reference Staff, if prolonged and intensive help is necessary;

(ii) instruction to new comers in the use of the library, particularly in the use of the catalogue and the other bibliographical tools available in the library and in the general outline of classification and shelf-arrangement; and

(iii) the supply of answers to simple queries, involving a minimum amount of search and the use of the few ready reference books such as year-books, directories and calendars usually kept at the information desk.

A good deal of the service rendered by the information desk may have to be over telephone wires. A retentive and associative memory coupled with capacity to do several things at once
without flurry and the ability to turn from one subject to another with quickness and ease are essential if the service of the person at the information desk is to SAVE THE TIME OF THE READER substantially. Slow, dull-witted, immobile and absent-minded persons cannot be of any service to the Fourth Law.

Let us now turn to Reference Work proper. Let us follow the reader in the stack-room. If the library is ideally organised, he will soon find himself in charge of one who is a specialist in the bibliography of the subject in which he is interested. Such a reference-librarian will greet him with a smile and begin to talk to him in the language of his subject. Being put at ease by these circumstances, the reader will state his problems and his requirements as definitely as he can. The reference-librarian will unreservedly place at his disposal his varied bibliographical experience, built up by years of contact with several specialists seeking his help and by the constant handling of the tools and the resources of the library from various points of view. This will SAVE THE TIME OF THE READER considerably and enable him to get at his materials far more expeditiously than otherwise.

The reader may be a young inexperienced student who is unable to find out the relative value of the different books that bear the same class number. Then, the reference-librarian will SAVE HIS TIME by readily picking out the volumes whose standard is within his reach. The reader may take an amateur’s interest in a subject. Then the reference-librarian will ascertain his previous equipment and work out for him a graded reading course, so that he can get the necessary acquaintance with the subject without any loss of time due to the unaided choice of incomprehensible books in an inconvenient order. The reader may be a busy administrator or specialist. In this case, the reference-librarian will pick out and assemble in advance all the materials that may be relevant to the topic pursued by him so that he can refer to them without wasting his precious time in knocking about in the different parts of the library to collect his materials.

Not long ago, a Sanskrit scholar came from an up-country town in search of some materials on certain aspects of Indian Philosophy. The Sanskrit books usually have perplexing titles, with hardly any indication as to the nature of the contents. Hence, he knew that there was no short cut to ascertain their value for his purpose except to open out each book and look it through. But he knew nothing either of the classified arrangement of the books or of the analytic nature of the subject catalogue. Nor did he know of the existence of the Reference Staff. On the other hand he had persuaded himself that, since his books would be in the Devanagari Script and his subject was an abstruse branch of ancient philosophy, he should not expect any assistance from anybody. Hence,
he came prepared to spend some days to get his work done. On the first day, in spite of repeated offers, he declined all help and began to carry a few books at a time to his work-table. After about an hour or two, when he was beginning to show signs of exhaustion, he was again approached in a tactful manner and he consented to be shown round the stack-room. That gave a splendid opportunity to the reference-librarian to explain the various arrangements that the library had made to SAVE THE TIME OF THE READER. He was eventually taken to the Indian Philosophy region. After a talk for about an hour, he went out for lunch. Without going into further details it may be stated at once that at about 4.30 P.M., he sought permission to use the office telephone to request the station-master to get his berth reserved that very night. Nor is it necessary to reproduce here his many words of surprise and thanks for the manner in which the library staff had SAVED HIS TIME.

**CHARGING AND DISCHARGING METHODS**

Let us now move on with the reader. We shall assume that he has finished all the reading he intended to do within the library itself and that he is ready to go home. Let us assume that he desires to take a few books home. The process of making the necessary entries before permitting him to borrow the books for home reading is spoken of as the 'charging work'. The reverse process of receiving the books back when he returns them and releasing him from all further responsibility about those books is known as 'discharging'. Before the advent of the Fourth Law, the method of charging and discharging was very cumbersome and wasteful. Even to-day, such antiquated methods still prevail in many of our libraries. It will be shown when we consider the Fifth Law that those methods will absolutely break down if the library functions up to the ideal of the first three laws. Here we shall confine ourselves only to the time aspect of the process.

The method that is prevalent in most of our libraries may be described as that of the *Day-book and Ledger*. In this method the reader fills up his name and the author, title and call number of the book in a printed form. The counter clerk copies these details in the Day-book and posts these daily records in a personal ledger to avoid searching through the Day-book to find a given entry. A few pages of this ledger are assigned to each reader. The call number of the book drawn and the date of issue are noted in the columns ruled for the purpose. On the return of the volume the date of return is set down in another column. If a book is returned after the due date the amount of fine due and the date and the number of the receipt of collection are entered in additional columns. Certain libraries get all these details posted also in another ledger in which each book gets a page. Apart from the impossibility of keeping up the alphabetic or call number order in such ledgers, the process of making the entries both
while charging and discharging makes the reader wait long at the counter. It is made still worse in rush hours since only one person could use this record book at a time. When this system was in vogue in the Madras University Library till three years ago, the average time wasted by a reader as a result of this old fashioned method of charging and discharging was about fifteen minutes.

But the recognition of the Fourth Law has led the library profession to overhaul the charging system completely. To effect this overhauling the purposes of the present day charging system had to be critically analysed. The charging system should answer the purposes of three definite records, viz., a time record, a book record and a readers’ record. In other words it should give ready answer to queries of the following type:

1. What and how many books are lent on any date.
2. Who has each volume on loan on any date.
3. What books are due on any date.

The most economical charging system that has been devised to answer all these purposes and at the same time fulfil the requirements of the Fourth Law may be described as the ‘Two-card’ system. In this system each book is given a book-card which is inserted in a book-pocket pasted on the inside of the front cover of the book, and each reader is provided with as many borrowers’ tickets as the number of volumes which he is entitled to remove from the library at one time.

Now let us follow our reader. He will bring up to the counter the books he desires to take home. He will present these books with an equal number of his tickets to the counter clerk at the exit gate. This clerk will immediately stamp the due date on the date labels of the books, release the book-cards from their respective pockets in the books and couple each of them with one of the reader’s tickets. As soon as this is done the reader will be at liberty to go home with his books. The time taken by this process of charging will be far less than the time taken to describe it. In fact it should be possible to charge at least a dozen books in a minute. Perhaps it is only in the charging method that the ideal of the Fourth Law has been actually reached.

Different devices are employed to couple the book-card and the corresponding reader’s ticket. One popular method is to make the reader’s ticket in the form of a stiff pocket and insert the book-card in it. Whatever be the means of coupling them, these coupled cards are arranged in a tray by the call number behind a date guide showing the due date.

When the book is brought back to the library the counter clerk at the entrance gate finds out the due date and the call number from the date label and with their aid he picks out from the charged tray the book-card coupled with the reader’s
ticket. The book-card is inserted into the book pocket and the reader’s ticket is handed over to the reader. This process also takes as little time as the charging process. There are many variations of this method which it would be out of place to dilate upon in this book. It is hoped to have in this series a separate volume on counter work, which will appropriately deal in detail with as many systems as possible.

The Time of the Staff

We have seen that one of the methods employed to SAVE THE TIME OF THE READER is to provide an adequate number of hands for reference work. Hence it follows that the greater the number of such hands and the longer the period for which they can be spared for actual reference work, the fuller will be the extent to which the purposes of the Fourth Law would be fulfilled. It follows as a corollary from this that the Fourth Law implies also that the time of the staff spent in routine work should be minimised as much as possible. This appeal of the Fourth Law has been engaging the attention of libraries for a long time and has produced splendid results. While a full account of the evolution of the methods of library routine will be given in a special volume on library routine, it may be stated in a word that the effect of the Fourth Law has been to revolutionise the method of keeping library records. The old bound books have been completely given up and loose cards have taken their place. It may even be claimed that the card system which appears to be now fast entering into all kinds of business houses and offices is a most noteworthy contribution of Library Science to modern administrative methods in general. It must be admitted that, in its turn, Library Science owes the invention of the card system to a sincere desire on the part of librarians to satisfy the Fourth Law in all possible ways.

We may perhaps illustrate the extent to which the card system can SAVE THE TIME OF THE STAFF by considering one set of library records, namely, those that deal with book selection, book ordering, book accessioning, book cataloguing and withdrawal. Perhaps the chart in the next page showing the inter-relation or the linking up of the records relating to these processes will simplify the discussion of this question. The first row indicates the sources for book-selection. The nature of the records mentioned in the second and the third rows is obvious. The fourth and the fifth rows show the different channels through which books may come into the library. A popular alternative name for ‘accession cabinet’ is stock-register. The withdrawal cabinet contains the list of books lost, worn out by use, or otherwise ceasing to be part of the library. The registers in each of any two consecutive rows are linked with each other by certain common entries, e.g., the order number is posted in the vouchers, and the voucher number, in the order registers.
In the pre-card days the titles of the books for consideration would be written either on sheets of paper or in note-books. Books not approved would be struck off. If too many items were struck off, it might become necessary to re-write the remaining items. Then, in the course of checking this list with the existing stock of the library, several items may have again to be struck off and notes about edition or year of publication, etc., of the existing books may have to be made against some of the items. At this stage again if the pages become too congested the surviving items might have to be re-written once again. Then the ‘order’ list would be prepared. It is very unlikely that all the books of an ‘order’ would be supplied on the same day. As the books come they would have to be listed. This might be the fourth occasion of writing out the entries. This fourth list would really constitute the Stock-book or the Accession Register as it is usually called. Then the catalogue cards and the shelf-register cards would be written and lastly it might be necessary to keep a separate register for the books withdrawn from the library. Thus, excluding the writing out of the catalogue and the shelf-register, the details of every book would have to be written about five times. In the card system, on the other hand, it is enough if the details are written once instead of five times. This gives a measure of the extent to which the card system SAVES THE TIME OF THE STAFF.
### Table: The Working of the Card System

|--------|-------|-------|-------|-----------|-----------|-------------|---------|--------|

- **In the card system one and the same card serves the purposes of five different record books.**
- A form of the card which is of the standard size 5" × 3" is shown in the previous page.
- It would be realised as we describe the use of this card that, in addition to saving time, it affords many other conveniences.
- A separate card is used for each item selected. All the details in the first page of the card except accession number, call number and withdrawal number are entered as soon as the selection is made. The entries about review may perhaps have to be written at a later stage when the review becomes actually available. The source from which the details about the book are taken is indicated near the left-hand bottom corner of the first page. The person making these entries puts his initials and date in the first row on the second side of the card.
- All such cards are roughly arranged in a classified manner to facilitate the work of those who have to approve the indent finally. The approving authority has just to sort it into three groups: "selected", "rejected", and "deferred consideration". Then the cards of the first group are transferred to the "approved" tray and the cards of the other groups, into corresponding trays. Then, the person responsible for the ordering work checks each card with the stock of the library and after the cards relating to books already in the library are eliminated, the surviving cards are transferred to the "order" tray with the notes in the cards themselves.
If the library purchases the books through an agent the "order" is typed straightaway from these cards. If, on the other hand, the library purchases the books directly from the publishers the cards in the "order" tray are first sorted according to the publishers and separate orders are typed for each publisher. In any case the "order" number and date of order are entered in appropriate places in the second page of the card. The vendor is usually instructed to mention the "order" number and date in the bill accompanying the supply, and the cards themselves are kept in the "order" tray behind the date guides showing the date of order.

On the arrival of the books the cards relating to them are readily lifted from the "order" tray and inserted in the title page of the corresponding books. The accessioning clerk carefully scrutinizes the books by comparing them with the entries in the cards with regard to author, title, size, collation, edition, date of publication, publisher, and series if any, and also checks the amount claimed in the bill with the published price noted on the card. If the supply is correct, the bill is passed for payment and the voucher number and the date of payment are noted in appropriate places in the card. The accession number is put in the book, on the card and in the bill also.

Then the books and the cards are passed on to the classifier and the cataloguer, who prepare the necessary catalogue cards and shelf-register cards and post the call-numbers in the cards. Then, the shelf-register cards and the accession cards are tallied by the accessioning clerk, after which the shelf-register cards are filed in the shelf-register cabinets and the original cards are transferred to the accession cabinets, and form part of the accession register.

Lastly, when the book has to be withdrawn from the library, the corresponding card is transferred from the accession cabinet to the withdrawal cabinet and given a withdrawal number. Thus, we have seen, one and the same card is made to migrate by successive stages from the "book selection" tray to the "withdrawal" tray and thus save the time of the staff and also add considerably to their convenience. Roughly speaking, for every minute required in the card system, five minutes would have to be spent in the old system. Further, the initials against the different items in the second column would make it possible to trace to the right persons the responsibility for any mistakes detected at any subsequent time—however late it may be. Experience has shown that this has a wholesome chastening effect on the staff. The progressive tabular statements indicated in the backside of the card enable the staff to furnish, without any loss of time, replies to the queries that are not infrequently put by the managing authorities. The confusion, dislocation of work and the excitement caused by queries of this type are well-known. In spite of the time wasted, satis-
factory and accurate replies are seldom obtainable. But it has been found that this type of card has made work of such a nature not only accurate but also quite easy and expeditious.

In a similar manner, the routine work of libraries is being simplified in many other ways, in order to SAVE THE TIME OF THE STAFF and thereby to SAVE THE TIME OF THE READER.

Central Cataloguing

Another direction in which an attempt is being made to SAVE THE TIME OF THE STAFF is that of central cataloguing. From the larger national point of view, much time is wasted as a result of every library continuing “to catalogue its own books, regardless of the fact that the same books undergo similar treatment in some hundreds of libraries throughout the country”. Even as early as the last quarter of the nineteenth century, the American Library Association began to devote its thought to this problem and experimented on a small scale, in the production and distribution of printed cards, in order to SAVE THE TIME OF THE STAFF of individual libraries. But, a large-scale organisation for central cataloguing was started only in 1901. The circular on the Distribution of Catalogue Cards (1) issued by the Library of Congress on October 28, 1901, marks an epoch in the achievements of the Fourth Law of Library Science. The difficulties experienced in the earlier years of this bold experiment are fully described by the Chief of the Card Division (2) in his Reminiscences and Observations on the Card Distribution Work of the Library of Congress.

But, the American libraries were not slow in recognising the value of central cataloguing to the cause of the Fourth Law. In the year 1929-30, the number of subscribers to the printed cards was as high as 5,011. Even foreign countries like China and Russia have begun to purchase these cards for their libraries. This wide market has naturally resulted in reducing the cost of these cards. The approximate cost of the cards required for a volume is estimated as four annas, whereas, as it has been already stated, the cost of preparing the cards in the library itself is as high as 10 annas per book in a Madras Library. The number of books for which congress cards are now available is 1,135,265. Till now, these cards contained only the Congress call number. Arrangements have now been made to print on them the Dewey number also. The success of this American experiment is leading many other countries to start similar organisations to SAVE THE TIME OF THE STAFF of their libraries. “The Russian and German government libraries already have card printing and distributing agencies. The Czechoslovaks and the Spaniards have started similar activities.” There are indications that the countries of South America are also contemplating the inauguration


(2) Essays offered to Herbert Putnam ... on his thirtieth anniversary as Librarian of Congress, pp. 193-206.
of central cataloguing, through a governmental agency. The Public Libraries Committee of England and Wales have strongly commended the proposal for establishing a Central Cataloguing Agency in the British Museum. They urge in its support that "a very large amount of work, time and skill would be saved" and that, as a result of the Library of Congress Scheme, "Time and money formerly spent by individual libraries on cataloguing the same books have been directed to more useful purposes".

The Fourth Law would urge the library world to reconcile the differences in the cataloguing codes of different countries so as to make the way clear for international co-operative cataloguing.

**LIBRARY LOCATION**

So far we have been dealing with the problem of saving the time of the reader after he enters the library. But, the Fourth Law is interested also in the time taken by the reader to reach the library. In other words, a library should be so located as to **SAVE THE TIME OF THE READER**. In a college, the library should be centrally located so as to be easily accessible to the students of all the classes. The research departments of a University should, as far as possible, be housed in the library buildings. The research laboratories, in which the scientific departments have to be housed, should be built in the same compound as the library.

But the location of a city-library cannot be made to satisfy the Fourth Law in such an easy
way. It would be impossible to find, in a big city, any site which would be equally accessible from all parts of the city. The larger cities of the West are reconciling this geographical difficulty with the demand of the Fourth Law by establishing branch libraries and delivery stations in all their divisions. We had occasion to give some examples of this practice, when we were discussing the subject of library location in the light of the First Law.¹ The ideal should be to provide a sufficient number of branch libraries, so that every citizen may find a branch within ten-minutes’ walk from his residence.

Rural readers suffer even more from the difficulties caused by distance in the operation of the Fourth Law. A branch library cannot be built near every farm home as it can be built near homes in the cities. The only means available to SAVE THE TIME OF THE RURAL READER is to put the library on wheels and take it to him from time to time. A good selection of books, chosen by a trained librarian, should be put in a motor van equipped as a travelling library and sent out for periodical exchange in small village libraries, delivery stations and isolated farm homes. Where villages or homes are inaccessible to motors, special arrangements should be made for the conveyance of books by hand from and to the nearest highway.

¹"Do you mean to say that the District Board can afford to take books out into the country in

(1) Vide p. 10.
this manner? Ridiculous! Let country people come to the town library and get their books as we do," some of the city-dwellers may say. But time is as precious to the rural reader as to the town reader and the Fourth Law is not meant merely for the town libraries. The Fourth Law would argue "There is nothing more ridiculous or more expensive in the institution of the travelling library system by a District Board than in the maintenance of the postal delivery system by the government. Is not a letter taken many miles into the country? Whereas the mail has to be taken to every rural home every day, the books may have to be taken to each village, perhaps only once in a month!" In recent years, these arguments of the Fourth Law have carried conviction to most western countries and Rural Travelling Libraries on a District basis are being rapidly established. They aim at adequate library service within easy reach of every one. They are operated from the district headquarters library through deposit stations and branches. The accompanying diagram illustrates the ideal way in which the Fourth Law is observed by one of the County Libraries of the State of New York. It delivers books within a mile from each home.

Tompkins County, New York State

Area—476 square miles.

Number of branch-stations visited by the bookvan of the County Library—160.

One station for every three square miles.
Ranganathan, Shiyali Ramamrita.
The Five Laws of Library Science.
(Sarada Ranganathan Endowment for Library Science).
Madras Library Association, 1931.
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