A METHOD FOR RECORDING LOANS
IN SPECIAL LIBRARIES

Describes in detail a method of construction of a new loan record apparatus. Shows how this apparatus eliminates the need for maintaining two separate records - one according to due dates and another according to a chosen heading - for recalling a book. Uses only one card for these two records by exploiting the possibility of filing a card in two directions simultaneously, that is from front to back and from left to right.

1 INTRODUCTION

In every special library the recording and recalling of loans is a major routine which consumes a great deal of staff time, and much thought has been given to seeking a method which cuts down labour whilst maintaining maximum efficiency.

For every item that we issue from the Research Division library we require to keep two records, one filed under a chosen heading to enable us to locate the item as quickly as possible, and one under the date to enable us to recall it when it becomes overdue. The apparatus described below which has been in use for the last twelve months enables these two records to be kept by one card only, through exploiting the possibility of filing a card in two directions simultaneously, that is from front to back and from left to right.

This idea has already been developed to a certain extent by some office equipment manufacturers who fit to the bottom of a filing drawer a bed of rods on which cards can be placed so that they overlap. To make our apparatus flexible enough for use as a loan recording system the bed of rods is made in the form of a continuous belt (see diag. 1A). The rods themselves are spaced half an inch apart, measuring from the centre of one rod to the centre of the next. The belt is moved by turning knobs at B which rotate the pivots C.

The second major feature consists of two horizontal belts D made of canvas or other flexible material on which date guides are marked at intervals of half-an-inch, and which is geared E to the rod belt so that when the pivots are rotated both belts move at the same rate and in the same direction. In this way, since the rods are also half-an-inch apart, any one date guide will remain in line with one particular rod. This is very important.

The third major feature is the cards themselves. They are indented along the lower edge as indicated in diag. 1 so that they stand firmly on the rods, the rods fitting into the indentations. The position of each card is naturally dictated by the date guides, e.g. card numbered 1 is issued during the first week in December therefore it is placed so that its left-hand edge just overlaps the rod beneath the date guide Dec/1. Card numbered 3 is issued during the second week in December therefore it is placed similarly on the rod.
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beneath the date guide Dec/2. Card numbered 2 is issued in the fourth week in December therefore it is placed, in order, that is between cards numbered 1 and 3 on the rod that falls beneath the date guide Dec/4 and so on. As the loans issued during the earlier months are returned the left-hand rods become vacant. Therefore the rod belt and date belt can be moved from right to left. This automatically shifts the remaining cards over to the left-hand side so that there is room for the current loans, and shifts the date guide so that it will show Jan-May instead of Nov-March and so on throughout the year. Briefly then it will be seen that the apparatus 1) is self perpetuating, needing the minimum of adjustment, and 2) enables cards to be filed simultaneously in date order and order of heading chosen (which may be numerical or alphabetical, or both, since it is possible to have two sequences, one behind the other).

2 DETAILS OF CONSTRUCTION

21 The Rods

As already stated the rods are in the form of a continuous belt rotated at pivots C by the knobs B and are half-an-inch apart measured from the centre of one to the centre of the next. An important point is the diameter of the rods. It follows that the narrower the rods the greater the space possible between them. A compromise must be made between having the rods thick enough to support a total weight of cards of five pounds or more and having the space between each rod wide enough so that the cards do not have to be cut away too much which would weaken them. Our rods are a quarter-of-an-inch in diameter. As they are half an inch apart (measuring always from the centre of one rod to the centre of the next) it follows that the space between the rods is also a quarter of an inch. By punching the
lower edges of the cards to a depth of three-eighths of an inch, so that spaces five-sixteenths of an inch wide alternate with tabs three-sixteenths of an inch wide there is enough tolerance to ensure that the tabs fit easily between the rods but will not readily slip out (Diag 2). Other factors could influence the thickness of the rods. One is their length which will be discussed further on. The other is the material they are made of. Thus it might in certain circumstances be possible to have a thinner rod if desired. However our cards are punched according to the stated measurements and though of fairly light stock have been used many times without damage to the tabs.

by Jan/1. 2. 3. 4. again and so on. The date guides are not marked with actual dates since any sequence chosen (e.g. 1, 8, 15, 22, 29) would fall on different days from month to month including Saturday and Sunday, and would therefore lead to confusion. Over a period of a year, as will be seen, four weeks are lost, but in a flexible system, as it is possible for this to be, those four weeks can easily be incorporated into the other forty-eight e.g., if there happens to be five weeks in a certain month the fifth can be combined with the fourth (Diag 3). As the cards need never be located by date as they are also in numerical or alphabetical order the position chosen is not important from the point of view of filing.

Since this idea of filing by arbitrary periods instead of by concrete dates might seem somewhat inexact the following comments may not be out of place. To choose a definite period of loan from one date to another, especially a calendar division as a week, fortnight or month is popular because this period is constant and therefore easily remembered and accepted by everyone. Also, where the date and author records are kept in separate files it is necessary to have a definite date in order to trace the card in the date file when the item is returned. So far as our library is concerned we require that the material is returned after a reasonable period of time but we do not require, for instance, to enforce a rigid rule that material lent out this Monday must be returned next Monday. Also we do not need a definite date for tracing the record because
the card need only be searched for under the
heading. Therefore so far as we are concer-
ned it is far more convenient to have a date
belt that gives arbitrary divisions but is self-
perpetuating throughout the year, rather than
to have to adjust it to make it rigidly accurate.
Items required back in a hurry for someone
else are given special treatment. This loans
system of course is only used for lending our
own material to our own people. In deference
to the custom of other libraries we keep re-
cords of loans either borrowed from or lent
to them in strict date order in a separate file.

It would be possible for the date belt to
be marked in alternative ways. For example
a library issuing loans for a very limited
period might find it more convenient to have
the date belt marked with the days of the month
instead of weeks in the year therefore the belt
would be marked 1 - 31 and would be self-
perpetuating in days only so that each sequence
would have to have the name of the month indi-
cated to avoid confusion.

23 Dividers

It is necessary to support the cards
front and back and also helpful, though not
absolutely necessary to separate the various
sequences. This is easily achieved by cutting
slots (F) down the sides of the frame at one-
inch intervals and inserting strips of plywood
(G) where required. It is advisable to cut the
slots down to just above the level of the rod
belt so that the dividers do not actually rest
on the rods. The dividers must not be higher
than the tops of the cards.

3 DIMENSIONS AND QUANTITIES

The interval of half an inch between
one rod and the next and therefore between
one date guide and the next was chosen as
being wide enough to show sufficient difference
between the cards under various dates and
small enough to enable the apparatus to be of
convenient size. Also, the importance of ade-
quate spacing between the rods so as to ensure
that the cards do not have to be punched away
too much has already been explained. The
closer the rods are together then, the less
space possible between them. This can be
offset to a certain point by having narrower
rods, but then the question of strength would
have to be considered. So by and large an in-
terval of half an inch satisfies all requirements.

31 Cards

A further major consideration is the size
of card. A very important feature of this appa-
ratus is that every card must overlap every
other card if only at the extreme edges. If this
is not ensured the front to back sequence will be
broken. In diag 1 the cards provide one clear
sequence 1 2 3 4 5 since it can be seen that each
card overlaps all other cards. But in diag 4
the cards are not all overlapping with the result
that there appears to be two sequences i.e. 135
and 245 where there should only be one.

This would lead to confusion. Therefore, as
the card on the extreme right must overlap
with the card on the extreme left it follows
that the maximum period of loan possible is
represented by the length of one card. Our
cards are eight inches long which is sixteen
half-inches and therefore gives a period of four
months. This is illustrated in diag 5.
Naturally the material can be checked at any time within that period but it does provide a generous range if required, before the most overdue cards have to be moved and the belts turned. A shorter card would, of course, give a shorter loan period.

The main body of the card, that is the writing surface, is two and a half inches high which, using the back as well, gives ample space for the heading and some forty recordings. The bottom tabs are three eighths of an inch deep and the top tab is half an inch deep and one and a half inches long. Although the rods are half an inch apart on the flat surface of the belt the spaces between them widen as they approach the pivots and any cards with their tabs caught between these rods would be mutilated. For this reason almost two inches at both ends of the cards is completely punched away leaving the row of tabs in the centre only (diag 1. H ). In this way no matter how near the card is to the pivot it cannot be damaged.

By putting the heading or the first (and therefore alphabetically most significant) word on the top tabs the broken nature of the file uncovers them here and there so that no guide cards are needed.

32 Date Belt

By choosing four date guides for every month it follows that forty-eight date guides, therefore forty-eight half-inches are needed. Therefore the date belt is twenty four inches long, but since it is continuous and some of it will be taken up at the sides by the pivots less than half, about eleven inches shows.

33 Card Belt

The breadth of the surface or the card belt must be the span of two cards minus half an inch overlap for, as has been seen, they represent the most overdue and the most up to date cards. With eight inch cards this represents fifteen and a half inches, and thirty-one rods. In this way it will be seen that the card belt will be longer than the date belt because, although the ends of the cards on the right hand-side of the belt have no date significance they must be accommodated on the rods (Diag 1. J). Therefore the amount of rods in the belt will be thirty one (on top) plus thirty-one (matching rods beneath) plus however many rods are taken up by the pivots.

The length of the rods (which represents the depth of the card belt) determines the amount of cards which can be accommodated and therefore the amount of loans. Our rods are fifteen inches long. Reckoning one hundred cards to the inch and allowing sufficient space for handling and supporting the cards, this allows just over a thousand loans, and keeps the apparatus a reasonable size. With the frame it is approximately seventeen inches square. Longer rods of course would accommodate more cards, but the longer the rods the more difficult it would be to file the end cards. Also the stronger the rods would have to be, so as not to sag through supporting a greater amount of cards; every two hundred medium weight cards weighs about one pound.

4 USE OF COLOUR

Our rods are in multiples of four and each four rods are painted in a regular sequence of four distinctive colours. The date guides (which are also in multiples of four) are painted to match. This means that the first period of the month is always black, the second red etc. This is of great assistance in filing. It is difficult to associate the correct rod with the date guide under which it falls when the line of vision is broken by cards. Since one colour is only repeated every four rods or two inches, possibility of error is negligible. Having a date belt back and front also assists the eye.

5 FRAME

The whole apparatus is enclosed in a wooden frame and should always, when not in actual use, be covered by a closely fitting lid to keep out as much dust as possible, for, since the cards are more exposed than normal filing cards they naturally tend to get dirtier. We use white cards but are experimenting with buff cards for this reason.

As an additional precaution against sagging, a wooden base is fixed across the apparatus through the rod (diag 1. H).

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