

CONNECTING SYMBOL FOR ALPHABETICAL DEVICE FOR MULTINOMIALS

(TECHNICAL NOTE, 42)

Abbreviations used :

- (AD) = Alphabetical Device
- CC = Colon Classification
- (CN) = Class Number(s)
- (IN) = Isolate Number(s)
- [1P1] = Personality Facet Round 1 Level 1
- (QI) = Quasi Isolate(s)

1 Alphabetical Device in CC

The Alphabetical Device consists in using the first or the first two, or the first three, etc, initial letters (all in capitals) of the name of an entry, existential or conceptual, for the formation of subdivision of an isolate [2].

(AD) can be applied in respect of proper names, trade names, and technical nomenclature which are internationally current. This device is to be used in case where no other method of subdivision gives a more helpful sequence among the (IN).

2 Multinomials

In the case of a binomial or trinomial nomenclature, as it usually obtains in the taxonomical division of micro-organisms, plants, and animals, the (AD) should be applied for each member of the binomial or trinomial as the case may be. The numbers got by (AD) for each member of a binomial or a trinomial, as the case may be, should be connected by a hyphen ^o- [1].

In applying the (AD) to genera and species, the rule for binomial and trinomial names secures a comparatively short notation.

Example :

B	<i>Bacillus</i>
BA	<i>Bacterium</i>
BA—A	<i>Bacterium abortus</i>
BA—A—0	<i>Bacterium abortus ovis</i>
BA—AC	<i>Bacterium attii</i>
BA—ACE	<i>Bacterium octosum</i>

21 SECTOR

In applying the (AD), we can use any of the sectors in which the first significant digit is a Roman alphabet. For example, (S—(A)), (S—(9A)), (S—(9xA)), (S—ZZA), (S—ZA), (S—A), (S—9A), (S—xA) etc can be used.

3 A Case Study

The subject 'Microbiology' can have, among others, the following (QI) in [1P1] :

- By taxonomical division,
- By habitat,
- By pathogenicity,
- By commodity production,
- By shape,
- By reaction to environment.

We may assign the following sectors to these (QI)

- (S—ZA) By taxonomical division
- (S—A) By habitat
- (S—91) By pathogenicity
- (S—1) By commodity production
- (S—71) By shape

Let us assume that

- G2 is the Basic Class Number for Biology of Bacteria,
- ZB represents *Bacillus* species
- ZB-C represents *Bacillus cereus* ; and
- C represents Loam soil habitat

Consider the (CN)

- 1 Biology of soil = G2, ZB—C = Biology of *Bacillus cereus*
Bacillus

Similarly,

- 2 Water-tube boiler, = D9J265, ZC—C Water-tube boiler, Cochran, Pulverized-coal fuel fired
Clarke-Chapman

4 Homonym

A homonym is thus created because we have used the hyphen to indicate super-imposition of isolates derived on the basis of different (QI) and also to connect two members of a binomial in the (AD). In other words, the same connecting symbol is used to do two different functions. When two Class Numbers, in each of which the hyphen has a different function occurs together, the homonym arises.

5 Resolution of Homonym

The homonym can be resolved in one of three ways :

- 1 By prescribing that in a set of (QI) for a subject going with a Basic Class, the sector (S—A) shall not be allocated to a (QI) occurring later than a (QI) to which the sector (S—ZA) or a similar sector—e g (S—ZZA)—of higher ordinal value has been assigned and the (AD) is used for deriving the isolates therefrom :

- 2 By using a packeted sector such as (S—(A)) or (S—Z(A)) for the (QI) occurring earlier to the (QI) to which the sector (S—A) has been prescribed ; or

3 By prescribing a new connecting symbol either for the Super-imposition Device or for connecting the members of the multinomial.

51 PRESCRIPTION 1

If prescription 1 is adopted, it will put out of use the Sec (S-A), a good single-digitated sector, giving 24 (IN) with the boundary condition that the maximum number of digits in an (IN) is one. This brings in a kind of rigidity in the notational system. It should be avoided.

52 PRESCRIPTION 2

If prescription 2 is adopted, sector (S-A) can be used without difficulty. But the number of digits in the (IN) got by (AD) will be increased at least by two, that is, the Starter and the Arrester.

The above two prescriptions also give rise to difficulties and rigidity in the choice of the appropriate sector for the (QI).

53 PRESCRIPTION 3

531 ZERO (0) AS CONNECTING SYMBOL

Therefore, a new connecting symbol was sought for.

One solution suggested was to replace the hyphen used in connecting the members of the binomial or trinomial by a zero (0). Thus the (CN) in the example in Sec 31 will get differentiated as follows :-

G2, ZBOC Biology of *Bacillus cereus*
G2, ZB—C Biology of soil *Bacillus*

532 UNHELPFUL SEQUENCE

Consider the following (CN) :

G2 Bacteria
G2, ZB *Bacillus*
G2, ZBOA *Bacillus abortus*
G2, ZBOAOE *Bacillus abortus equi*
G2, ZBOA—C Soil *Bacillus abortus*
G2, ZBOC *Bacillus cereus*
G2, ZB—C Biology of soil *Bacillus*

The above sequence of the (CN) is unhelpful because a subject of greater extension comes after a subject of lesser extension and greater intension.

533 NEW CONNECTING SYMBOL

This indicates that to connect the members of a binomial or a trinomial, we should have a connecting symbol that has a higher ordinal value than that of the 'hyphen' used for the Super-imposition Device and less than that of 'a'. The symbol suggested is '=' (Equal to sign).

Thus the (CN) in Sec 532 will now be

1 G2 Bacteria
G2, ZB *Bacillus*
G2, ZB—C Soil *Bacillus*
G2, ZB=A *Bacillus abortus*

G2, ZB=A—C	Soll <i>Bacillus abortus</i>
G2, ZB=A=E	<i>Bacillus abortus equi</i>
G2, ZB=C	<i>Bacillus cereus</i>
2 D9J25, ZC—C	Water-tube boiler, Cochran, Pulverized-Coal fuel fired
D9J25, ZC=C	Water-tube boiler, Clarke Chapman

This sequence is helpful.

6 Where to Use the New Symbol

In Sec 5 Category 3 it was mentioned that a new connecting symbol could be used either

- 1 In Super-imposition Device ; or
- 2 In connecting the members of a multinomial in (AD).

In Sec 533 the new connecting symbol '=' has been suggested for use for the latter purpose. The number of cases of use of (AD) for multinomials is comparatively fewer than the cases for Super-imposition. In the book level, the former cases are practically negligible. Therefore, the Law of Parsimony indicates the use of the new connecting symbol for the less frequently occurring situation—*viz* (AD) for multinomials.

7 BIBLIOGRAPHICAL REFERENCES

- 1 Sec 2 RANGANATHAN S R. Alphabetical device and multinomials. (*As Lib II*, 10; 1963; Sec H6).
- 2 Sec 1 —. Colon classification. Ed 6. 1960. Sec 0585.)

M A GOPINATH
A NEELAMEGHAN
S R RANGANATHAN
S SEETHARAMA

G2, ZB=A—C	Soll <i>Bacillus abortus</i>
G2, ZB=A=E	<i>Bacillus abortus equi</i>
G2, ZB=C	<i>Bacillus cereus</i>
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ZZA2 [Technical Note]

2:51

INTERPOLATION DEVICE

(TECHNICAL NOTE, 43)

0 Introduction

The Canon of Hospitality in Array enunciates that a scheme of classification should have provision for extending due status in the schedules to the newly cropped up subjects. This coordinate status is expected at phase, facet and isolate level. Various schemes of classification have made use of different devices to fulfil this requirement, but farsightedness of the author of Colon Classification can well be reflected from the detailed study of the following devices which extend adequate hospitality at various levels.

- | | |
|--------------------------------------|---------------------------|
| 1 Interpolation Device ; | 4 Alphabetical Device ; |
| 2 Sector and Group Notation Device ; | 5 Common Isolate Device ; |
| 3 Chronological Device ; | 6 Zone Device ; and |
| | 7 Subject Device. |