

with all but one of the designations, of which there are more than one opposite a single letter. When you use a letter to indicate a word beginning with some other letter than the one opposite which it is placed, and this process is repeated more or less throughout the hundreds or even thousands of uses of an alphabet within an index, there is literally no guide for the memory. Whereas, in substitution of one word or phrase for another, since you adopt and use the accepted word and phrase only, it soon becomes fixed in the memory, and the former word or phrase disappears as completely as though it had never been known.

When you have gone the limit under the foregoing instructions and there still remains a letter with more than one designation opposite it, select the designation least used, and put it opposite the second letter in the designation. If this is in use, then the third, and so on down, always, however, giving preference to a letter carrying the dominant sound of the designation.

In a designation two or more words as, Direct Purchase, the dominant or distinguishing word of the designation (Direct) is the word to be considered in determining the letter opposite which it shall be placed.

When you have once placed a designation opposite a certain letter as By-products opposite Y, see that the same word is opposite the same letter throughout the index. Consistency in inconsistencies is especially important.

In the foregoing list of Root Letters under the Unlimited Root method, containing 16 designations for 22 letters, there is only one designation which is not entirely mnemonic, J and K standing for I and O respectively, may fairly be regarded as mnemonic.

This paper is intended only as an outline of the principal considerations in the making of a mnemonic index, written for those who are already familiar with the use of letters as symbols in indexing.

It is generally recognized that man's intellect has not been materially augmented throughout the period of recorded history and the progress of the later generations is due largely to accumulated knowledge and not much to superior intellect.

It therefore follows that progress is dependent upon the ability to record existing methods, since otherwise there can be no accumulation of knowledge, except through word of mouth.

Progress in the arts of painting and music, form probably the most conspicuous examples of this fact. While in their primitive form one is as old as the other, the progress in painting in which the recording of the method is indicated in the painting itself, has been comparatively uniform, while until about 1600, when an even partially adequate method of writing music was devised, there was practically no progress in music.

The first requisite in recording anything is adequate means of designation. Until the advent of Frederick W. Taylor, the functions and things involved in industry were thought to be innumerable and for that reason were considered impossible of designation. But just as architectural or mechanical drawings and plans are completed before any of the physical work begins, and are then followed out to the letter, so since Mr. Taylor's application of the principles of science to management, and the consequent perfecting of the mnemonic index, it is now increasingly customary to make indexes and instructions for management, and to have them carried out to the letter as minutely and as literally as are architectural and mechanical plans.

The function of the index and instructor in management, the accuracy and facility with which instructions may be written to symbol, and the relation of these indexes and instructors in management—to assembled, detail, and working drawings in construction are fundamentals, the comprehension of which gives one some conception of Mr. Taylor's vision, which though popularized, is as yet but superficially and inadequately understood.

The Society to Promote the Science of Management

PROGRAM FOR THE BOSTON MEETING

FRIDAY, MAY 21, AND SATURDAY, MAY 22, 1915

All Sessions at the City Club, 12 and 14 Somerset St.

FRIDAY, MAY 21

8.15 P. M. Assembly Room, 3d floor
Individuality in Industry
By Robert B. Wolf, Burgess Sulphite Co., Berlin, N. H.
Discussion

10 P. M. Informal Smoker in Grill Room, Parker House

SATURDAY, MAY 22

Forenoon Visit to Watertown Arsenal
Special car will leave Scollay Square at 9.25 A. M.
Round trip 50 cents

1.30 P. M. Luncheon, Room I, 9th floor, City Club. 75 cents

3 P. M. Assembly Room, 3d floor
Business Meeting
Statement by the President
Remarks concerning Mr. Taylor
Report of Committee on Revision of Constitution

5 P. M. Assembly Room, 3d floor
The Index as a Factor in Industry
By John H. Williams, Poughkeepsie, N. Y.

6.30 P. M. Dinner, Room I, 9th floor, \$1.25

8.15 P. M. Room I, 9th floor
Discussion of Mr. Williams' paper