First Report<br>of the Special Committee<br>Centralized Technical Processes and Bookbuying

Page
I. Importance of Studying Centralization ..... 3
II. Definitions ..... 4
III. Objectives of the Committee. ..... 4
IV. Types of Centralization or Cooperation. ..... 4
V. New Tools Necessary for Centralization ..... 7
VI. Effect of Joint Action on Library Processes ..... 8
VII. Specific Questions that Must be Answered ..... 15
VIII. Steps Preparatory to a Study of the Questions Rai sed ..... 30
IX. Specific Titles of Problems to be Studied. ..... 31
X. Problems Grouped by Order of Importance ..... 41
XI. Conclusions of the Committee ..... 44
Appendix I. A Printed Union Catalog for the Area ..... 46

First Report of the Special Committee on Centralized Technical Processes and Bookbuying.

This Special Committee was elected by the Colorado College and Head Librarians Conference at a meeting at the Mary Reed Library, University of Denver, on April 19, 1941, to outline ways in wich concrete studies could be made of centralized cataloging and other technical processes. Centralized bookbuying was added by the Committee because the processes were so closely related. It was also found necessary, in order to get a well rounded view of the problems involved, to consider the vari ous degrees of library joint action from complete centralization to complete decentralization.

## I. Importance of Studying Centralization,

Technical processes in libraries are now being given another critical re-examination. They are being attacked as costly, cumbersome, and as producing an imperfect tool for library patrons. The fact that card catalogs in the largest libraries have become unvieldy has added point to the current discussions.

That serious consideration should be given to the need for reorganization of the technical processes in libraries most members of the library profession will admit. When cooperative cataloging was first introduced it was hoped that much of the cost problem would be solved through universal use of Library of Congress cards, the adoption of the subject headings given on the cards, and the acceptance of the classification numbers noted there. The reluctance of libraries to become so standardized-and the libraries of the Rocky Mountain area are quite typical in that respect-melped to defeat much of the purpose of cooperative cataloging, although some appreciable savings were effected. It is therefore necessary to approach this old problem from new angles.

At the same time a number of careful studies should be made to determine just what the end product of the library technical processes should be. Such studies would insure that any steps which might be taken in developing joint action would be along desirable lines, and that defects in direction would be corrected before the new tools and machine ry of operation became too complicated and less adaptable to future changes.

Experimentation on a national scale is difficult. Experimentation on a local scale often misses some of the factors that influence operation on wider bases. Experimentation on a regional scale, however, is feasible, and the results of such studies may be of sufficient value to be followed up on a national or an interm national scale.

This Committee feels that Colorado, and the Rocky Mountain region, is a particularly fit field in which to carry on the experiments and research studies proposed in this report. The region has few large libraries, but it does have a considerable number which specialize in particular subjects so that the number of books in the state, or the region, when taken together make a respectable collection. At the same time the institutions within the state are not weal thy and the cost of building up and operating good libraries is a heavy drain on available resources, Any methods which would increase services while reducing costs are deserving of careful consideration. The region, mainly because of the existence of the Bibliographical Center in Denver, has tended to become a fairly closely knit library

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the subject headings of the individual libraries wi th the central office, particularly if Ifbrary of Congress cards cannot be had. It also raises a question as to the percentage of things received by the different libraries which are in these various catagories and for what proportion of them Library of Congress cards can be secured.

B 2.Centralized purchasing, but centralized technical processes only for materials for which Library of Congress cards are not available.

Under this method it is assumed that the consistent use of Library of Congress cards, their classifications and subject headings, would insure uniformity of action, and in that case only things for which Library of Congress cards were not available would be cataloged in the central office. Since Library of Congress cards are available for most documents this type of material would not present a problem. There might be doubt, however, as to whether libraries would send to the central headquarters materials for which Library of Congress cards are not available but would attempt to use them uncataloged instead. Much of the material in the vertical file is already treated this way, but material for permanent preservation should be carefully recorded so that other libraries may know where it is.

B 3oCentralized purchasing and centralized technical processes for all materials except documents, periodicals, and additions to serials.

By this set up each library would be required to have a specialized document staff, and it could lead to a too great differentiation between the handling of documents and other classes of materials. Since the preliminary handling of government documents is largely a non-clerical job, it would require professionally trained personnel. This is particularly true if non-federal documents, for which Library of Congress cards are not available, are secured in any great numbers. It is possible that this personnel oould take care of the more complicated questions rising from the handing of periodical and serial entries. All entries made by the technical staff at each library would, however, have to be correlated with those at the central office, so that many cards would have to be sent to the central office for approval before they could finally be put in the local catalogs:

B 4.Centralized bookbuying, card making and subject headings, but with classificar tion done in individual libraries.

This proposal immediately raised the question of the value of a uniform classification scheme for all of the colleges of the state, and whether the
1 special needs of each of the separate institutions could be served by a scheme which is based on general needs. The effect on the development of future cooperation and the feasibility of a transfer of books from one library to another, should be studied in the light of this type of joint action.
C. Complete centralization of technical processes but decentralization of bookbuying.

Under this scheme some method of transporting materials to the central office to be cataloged would have to be worked out. Since it would include not only purchased materials, but gifts, exchanges, documents, the problem would be fundamental.
D. Partial centralization of technical processes but decentralization of bookbuying.

This group of "types" should be broken down into more specific examples under' $B$ above.
E. Complete decentralization of technical processes, but centralized bookbuying.

AIl technical processes under this arrangement would be handled by some method of cooperation, but all purchases would be as completely centralized as possible.
F. Complete decentralization of technical processes and bookbuying but uniformity secured by some type of cooperative arrangement under a committee with powers of suggestion or direction.

The principal necessity here is some method of getting decisions from the committee so that materials may be cataloged rapidly. Would the books themselves be sent to the person who was to make the decision or would it be done by correspondencef Many similar questions will arise.
G. Any combination of the aoove types which may later be suggested.
V. New Tools Necessary for Centralization.

With any type of joint action some new tools will be necessary for proper operation. These tools are considered under: purchasing; card making and author heading; classification; subject heading; and binding.

Tools necessary for centralized purchasing would depend on what the central office was supposed to do. Would it merely place orders for other libraries, checking on those wich are duplicated in the region and so reporting to the library signing the orderf Or should the central office make recommendations as to what should be purchased, and in certain cases recommend alternate titles for those first suggested? Should the central office also keep a list of the wants of the various libraries and so have a catalog of "lacuni"? Obviously a union catalog of some sort is the first necessity for joint purchasing. For recommending other books for purchase a subject catalog would probably be necessary at the central office. If central headquarters is also to be on the look out for material wanted but normally not found in the trade, it would be necessary to check second hand catalogs against these "lacuni". The central office would also have a very considerable file of publisher's catalogs, national bibliographies, and other sources for securing needed information.

In making cards the first essential is uniformity of author headings, a: situation which calls for a union catalog of author entries, together with cards from as many other lioraries as possible. Granting that all of the libraries should use uniform cards a considerable investment in machinery for reproducing cards is necessary. This raises the question of uniformity. For instance, will the simplified cataloging of fiction that does very well for Colorado State College be satisfactory to the English Department of the University of Colorado which looks upon the same books as sources for research?

If classification is centralized a union shelf list is a necessity.

If centralization of technical processes is to be complete all subject headings should be assigned at the central office. Any semblance of uniformity in the various libraries is impossible unless the central organization has a complete list of the subject headings now used in the various schools. With the centralized cataloging department so far away from the individual libraries effective work may, require a complete subject catalog. It is a question as to whether identical subject headings should be used in all libraries, but any system of exchange of cerds on overlapping subjects would seem to make uniformity necessary.

Completely centralized binding would require a central record of types of binding, methods of lettering, and colors used. It would also require a record of what volumes had been bound, but this might be shown in the union serial cataloge

In certain cases records now kept at the individual libraries could be combined at the central office to make new tools.

## VI. Effect of Joint Action on Iibrary Processes.

Following is a detailed list of the processes followed in the various libraries. This should--

1. Determine what some of the processes are, and set some form of common denominator for factual studies;
2. Indicate whether certain processes might not serve as type examples of the difference between local and centralized handling of technical processes.
3. Eliminate certain processes from study on the ground that costs involved have but small effect on the problem as a whole.
4. Give a picture of wich technical and book order processes would have to be continued in each library under any system.

In the following table the possible variations in costs for each process under various systems of joint action is indicated. Symbols have been used in the body of the table as followsm
-i Done in individual libraries, cost probably the same.
I Done in individual libraries, cost probably varies.
$s$ Done in central office, cost probably the same.
$\nabla$ Done in central office, cost probably varies.

* Not done under system being considered.

B Done in both places, cost probably varies.
Under the heading of "Types of Cooperation" the letters refer to the types described in the Section IV. Types D and $\mathbb{E}$ are not included since the subdivisions for technical processes would be the same as under B. No specific system has yet been proposed under $G$. In brief the letters stand for -
A. Complete centralization.

Bl. Complete centralization for all purchased items.
B2. Centralized bookbuying, and centralized technical process where no Iibrary of Congress cards were available.
B3. Centralization for everything except documents, periodicals, and added entries for serials.
34. Centralization for everything except classification.
C. Complete centralization except for bookbuying,
F. Complete decentralization. (Work of the coordinating committees not shown in tables).

Processes
ACQUISITIONTS DHPARTMENT.
Purchases
Follow lists of new publications
Go over second hand catalogs
Check lists of recommended purchases
Check catalog to see if in library already
Check with national bibliographies for accuracy
Get I. C. card numbers
Query Bib. Center for holdings elsewhere
Make order cards for new orders
Notify recommender if not ordered
Draw requisitions for purchase
Make a record of sums obligated to spend Forward requisitions to proper officer
File order cards
Receive requisitions (or book orders)
Check for holdings al ready in area
Check to see if "in process"
Notify local libraries if a duplicate
Local library notifies recommender "of book
Local library notifies center of decision
Item ordered from proper source
Order cards filed
Items checked against order file
Items checked against bills
Mark purchase data in books
Charge individual libraries for items
Libraries billed for purchases
Books sent on for cataloring
Bills checked against orders out
Expenditures charged against proper funds
Books sent on to local catalogers
Books shipped to the central catalogers
Books sent on to the central catalogers
Payments received by the central office

A: Bl B2 B3 B4 C F

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| $i$ | $i$ | $i$ | $i$ | $i$ | $i$ | $i$ |
| $i$ | $i$ | $i$ | $i$ | $i$ | $i$ | $i$ |
| $i$ | $i$ | $i$ | $i$ | $i$ | $i$ | $i$ |
| $*$ | $*$ | $*$ | $*$ | $*$ | $i$ | $i$ |
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| $B$ | $B$ | $B$ | $B$ | $B$ | $i$ | $i$ |
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| $B$ | $B$ | $B$ | $B$ | $B$ | $i$ | $i$ |
| $B$ | $B$ | $B$ | $B$ | $B$ | $i$ | $i$ |
| $S$ | $S$ | $S$ | $S$ | $S$ | $i$ | $i$ |
| $V$ | $V$ | $V$ | $V$ | $V$ | $*$ | $*$ |

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Processes
ACQUITISIONS DEPARTMENTI (continued) Exchanges

Check lists from libraries for items wanted
Check items wanted against catalogs
Write to ask for exchanges
ilake cards, for "orders out" file
File cards
Che ck receipts against order files
Keep statistics of exchanges
Sond notification of receipt
Nake a record of exchanges received
Send materials on for cataloging
Send materials to center for cataloging
Locate I. C. numbers for catalog items

A B1 B2 B3 B4 C F

| $i$ | $i$ | $i$ | $i$ | $i$ | $i$ | $i$ |
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| $*$ | $*$ | $*$ | $*$ | $*$ | $i$ | $i$ |
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| $V$ | $V$ | $V$ | $V$ | $V$ | $*$ | $*$ |
| $V$ | $i$ | $V$ | $V$ | $V$ | $i$ | $i$ |

Note: No processes for making exchrnge lists worked out. This might be handled at the central office as a unit, at probably no extra cost, as far as making lists were concerned. However such duplicates might be checked against holdings of other libraries in sy stem and copies properly distributed before lists were made.

Gifts
Go over gifts and select items
Go over lists of materials to be had free
Write cards asking for material in gift
Make records of materials reguested.
File record of requests (order out file)
Check incoming items against "order outs"
Acknowledge receipt of items
Decide on how to handle (catalog, or V .f.)
Send on for handling - if v.f.
Send on for handling - if cataloged
Send on to central office for cataloging
Locate L.C. card numbers for catalog items
Documents
Check lists giving documents for items
Check with catalog to see if in liorary
Reques.t needed items
Make cards for items requested
File cards in "order out" file
Check receipts against requests
Acknowledge receipt of beged documents
Locate Documents class. no. if used
Send on for preparation for shelves
Send to central office for handling

| $i$ | $i$ | $i$ | $i$ | $i$ | $i$ | $i$ |
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| $i$ | $i$ | $i$ | $i$ | $i$ | $i$ | $i$ |
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| $V$ | $*$ | $*$ | $*$ | $V$ | $V$ | $*$ |

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## i

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## Processes

ACQUISIIIONS DEPARTMENI (continued)
Pamphlets (for pamphlet files)
Go over lists of pamphlets available
Check against pamphlet files to see if dups.
Write cards for gifts
Make cards to show what were asked for File cards of "beged" material (orders out)

Check income materials against files Wirite card of thanks
Send to department where kept
Periodicals and Serials
Receive suggestions for new titles
Check with Bib. Center for other holdings
Decide on acquisition policy
Drav requisition on proper source
Center places order with proper source
Center makes up general bills for all
Center bills the local libraries
Local library checks bills
Local librexy send bill on for payment
Local library keeps record of payments
Current numbers checked in regularly
Write for missing numbers
Write for indexes
Collect for binding
Preliminary collation for binding
Send to Center for binding
Draw requisitions for binding
Make out binding slips
Send complete volumes to bindery
Check binding against orders
Check binding bills
Bill separate libraries for binding
Send bills on for payment
Miscellaneous processes
Clipping second hand catalogs
Filing clippings from catalogs
Checking orders against clipping file
Filing "lacuni list" of all lioraries
Checking new second hand catalogs here
Recording unfilled orders in "lacuni"
Keep statistics of acquisitions
Annual report of libraries
$\triangle \mathrm{Bl} \mathrm{B2} \mathrm{~B} 3 \mathrm{~B} 4 \mathrm{C} \quad \mathrm{F}$

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## Administrative functions

Decide on materials to be handled
Decide on type of processes
Note: Fren within a single library it may be necessary to use different types of procedure for different types of materials
Make an annual report to lioraries
Decide when to wait for I.C. cards or to make own cards
Collect statistics on processes
Record of books in progress
File cards received from order dept.
Make a record as book progresses
Draw out cards when entries are in main catalog
Author entries (with L.C. cards)
Check to see it conforms to catalog
Check added entries
Indicate changes and additions
Make authority cards for changes
Send copy of authority cards to center
Copy authority cerds for local libraries
Send authority cards to local libraries
File authority cards
Indicate changes to be made on cards
Make drafts of needed new cards
Author entries (without Inc. cards)
Decide on author heading
Decide on secondary authors
Make authority cards
Send copy of authorj.ty cards to center
Copy authority cards for local libraries
Send authority cards to local libreries
File authority cards
Indicate name cross references
Make drafts of author cards
Indicate added cards to be made
Subject heading's
Decide on headings to be used
Indicate necessary cross references
Check headings on L.C. cards for local usage
Record new headings in subject head list
Make records fow other subject headers
Local library reports new headings to center
Central ofince checks against headings in use
Central office makes record for central staff
Staff members put record in desk copies of headings
Select subject heads for pamphlet files

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| PREPARATI ON DEPARTMENT (continued) Processes | $\mathrm{Bl} \mathrm{B}_{2} \mathrm{~B} 3 \mathrm{B4} 40$ |  |  |  |  |  |  |
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|  | PREPARATI OIN DEPARTMENT (continued) |  |  |  |  |  |  |
| Subject headings (continued) |  |  |  |  |  |  |  |
| Indicate crosses for catalog to pamphlet files | I | I | I | I | I | I | i |
| Record new subjects used in official list | I | I | I | I | I | I | i |
| Send center list of headings used only for pamphlet files | I | I | I | I | I | I |  |
| Central office records in official files | V | V | V | V | V | V | * |
| Classification |  |  |  |  |  |  |  |
| Decide on classification to be used | V | B | B | B | 1 | V | i |
| Check numbers used in classification | $\nabla$ | B | B | B | 1 | V |  |
| Put temporary number slip in shelf list | V | B | B | B | i | V |  |
| Report number used to central shelf list | * | - | I | I | * | * |  |
| Central office checks on official shelf list | * | $V$ | V | V | * | * |  |
| Central office reports if acceptable or not | * | V | V | V | * | * |  |
| Local library makes necessary corrections | * | I | I | I | * |  |  |

## Revision

Revisors check author headings, subject headings, and cross references
Revisors check classification numbers
Card making (with I.C. cards)
Order I. O. cards
Check book with cards received
Check in cards received on stanaing orders
Send books and cards to head of department
When returned type headings on cards
Make cards for shelf lists
Make extra cards needed
Revise cards
Make cards for the Bibliographical Center
Make cards for the central office for extra subjects
Card making (wi thout I. O. cards)
Make main card from data sent to card makers
Revise cards
Make shelf list card
Make additional cards for catalog
Make added cards for catalog at center
Make an extra card for the Bibliographical Center Proof read all cards made

Other typing tasks
Type book pockets
Type book cards
Make see cards from catalog to pamphlet files
Make lists of additional to serials for center
Add new entries to serial catal ogs

## PREPPARATION DEPARIMENT

Olerical processes

Stamp accession number in books and on cards
Check with central office so as not to duplicate numbers
Paste in book pockets and plates
Stamp with library name
Mark call numbers on backs of books
Mark pamphlets with file subjects
Stamp pamphlets with college ownership mark
Put materials in pamphlet binders
Make cheap forms of temporary binding
Final check
Che ck all processes before sending books on
Filing in catalogs
Sort cards for filing in proper files $\quad B \quad B \quad B \quad B \quad B \quad B \quad i$
Alphabet cards before filing
File cards in official catalog
File cards in public catelogs
File cards in shelf lists
Revise filing
File see cards for Pamphlet file in public catalog
STEPS DUE TO TRANSPORMA.TT OiN
Make record of items sent to center Maxe recor $\bar{\alpha}$ of things sent out from center
Checir lis os of things sent for shorts
Sort mate:rials going to verious libraries
Pack all materíals to be shipped.
$V \quad B \quad B \quad B \quad s \quad s \quad i$

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## VII. Specific Questions that Must be Answered.

In order to give a proper basis for planning, the following questions should be considered. Problems for study which should answer them are given in Section IX, p. 31 .
Pages
A. General policy ..... 15
B. Clientele of libraries ..... 16
C. Actual condi ti ons in separate libraries ..... 17
D. Reference service of local libraries ..... 17
E. Other methods than centralization ..... 18
F. Operation of a central office ..... 19
G. Space and location for central offices ..... 19
H. Equipment and supplies ..... 20
I. Personnel ..... 20
J. Bookbuying ..... 21
K. Technical processes ..... 22
I. Catalogs ..... 24
iv. Recataloging and reclassification ..... 24
N. Author entries ..... 25
O. Subject entries ..... 25
P. Classification ..... 26
Q. Serials and serial catalogs. ..... 26
R. Pamphlet files ..... 26
S. Card iakine ..... 27
T. Binding ..... 28
U. Other technical processes ..... 28
V. Filing ..... 29
W. Cooperation under a comittee ..... 29
X. The final questi on ..... 30

## A. General Policy

1. Is joint action desirable? What are the disadvantages of autonomy? Answered by Problems 17, 21-23, 68.
2. Are the libraries oi the state ready for joint action, or any form of cooperation? Psjchologically? Financiallyi Answered by Problems 60, 68.
3. Is the clientele of the various lioraries ready for such joint action? Answered by Pioblems 34, 36.
4. What would be the reaction of the college presidents to any proposals if presented at this time? Answered of Problem 36.
5. Is joint action to be approached from the standpoint of Colorado alone? On basis of its ultirate spread to the Rocky Mountain areal Because it is testing ground for que tions of national policy? Answered by Problems 23, 68.
6. What effect would the greater use of film or microprint in libraries have upon. plans made at this time? Greater use of recordings? Other materials? Answered by Problems 23, 27.
7. Are there any now developments in other techniques that might have an influ-. ence? Cheap methods of reproduction of catalogs? Butter communication systems between individual libraries? Other developments? Answered by Problems 21, 33, 49 .
8. How desirable are unified methods which cannot allow for.local idiosyncrasies or the needs of particular specializations? Answered by Problems 1, 2, 3, 4, 17, 21, 22, 44, 45, 46.
9. Is the need for greater local departmentalization, or break down by division, instead of greater cooperation and centralization? Answered (in part) by Problem 36. Possibly by Problem 59.
10. What will be the effect on centralized organization of future changes in methods of instruction? Changes in rates of growth ? Changes in methods of prom duction of reading matteri Changes in approach to library problemsi Answered by Problem 23.
11. Are there varieties of materials that cannot be economically handled by a central office or on a uniform basis? Documents? Pamphlets? Musici Records? Serials? Gifts? Exchanges? Material cataloged in one library and nòt in anotheri Answered by Problems 55, 56, 57,58.
12. Would a "joint storage building" have any influence on the processes studied in this report? Or would local "storage" buildings change the picture? Answered by Problems 23, 30, $32,33,34$.
13. Would it be legally possible for the college libraries to set up their own "jobber" to handle purchases? Would the same arguments apply to having a joint owned bindery? To a single center for all technical processes? Answered by Problem 12.
14. What can be done under a centralized system that cannot be done now Answered by Problems 21, 22, 65.
15. What are the costs of present methods? Answered by Problems 55, 56, 57, 58, 59.
16. What would be the cost of any proposed method of operation? If more than the present system would the results be worth the cost? Answered by Problems 55, $56,57,58,59$.
17. What would it-cost to get the present libraries ready for joint action of any kind Could it be done without help from some foundation? Answered by Problems 44, 45, 46, 47, 48, 57.
18. What effect would any proposed scheme have on present personnel? On salary schemes? On retirement and annuity rightsi On faculty and grading status in particular institutions? Answered by Problems 24, 25.

## B. Clientele of Libraries

19. What are the bibliographical needs of literary users? Answered by Problem 1.
20. Wherein is the clientele of the various libraries different? Answered by Problems 1, 2, 3, 4, 34, 35 .
21. What are the actual needs of library users? For author entries? For subject headings? In classification? Answered by Problems 1, 2, 3, 4, 34, 35, 44; 45, 46.
22. To what extent is it absolutely necessary to have material in the library for service to library users? $C_{a n}$ it be borrowed more cheaply and as effectively? Answered by Problems 17, 18, 20-22.
23. What criticisms are now made of library operations? Too slow Too cumbersome? Too costly? Classification and catalog too detailed? Inconsistent? Hard to usei Not sufficiently detailed Not up to datef Not worth while? . How much of such criticism is due to poor training in use of catalogs? Answered by Problems 2, 36, 66.
24. Would a centralized system make these criticisms more pronpunced Would it correat any of them? Answered by Problems 36, 68.
25. What new criticisms would come from a centralized system? Objections that each school could not do just as it pleased? Answered by Problems 36, 68.
C. The Book Collections
26. What are the sizes of the current collectionsi How fast are they growing? Answered by Problems 23, 27.
27. What is the actual amount of duplication? What percentage of books in all libraries? What in most libraries? What in few librariesi In only one library: Answered by Problem 28.
28. To what extent has duplication of materials in other libraries in state held down by the purchase of additional titles that are needed in the areal Answered by Problem 28.
29. If duplicate copies are purchased how nearly are they acquired at the same time? Answered by Problem 28.
30. How much of the current collections is foreign in origin or language? What languages are represented? What might be expected if more close cooperation is effectedi Answered by Problem 29.
31. What other factors in duplication would have an effect on policies? Answered by Problems 23, 27, 28, 29 .
32. How much duplication is necessary in any case? Answered by Problems 15, 16, 34.
33. Will centralication make it possible to reduce duplication? What new techniques can be set up for this purposep Answer by Problems 13, 17, 18, 34. .
D. Reference Service of the Local Libraries.
34. What tools now in the acquisition and preparation departments would have to be retained locally because of their reference use? To what extent would they have to be duplicated at the central office? Answered by Problems 31, 37, 38, 39.
35. To what extent do acquisitions and preparation staff members answer questions of a reference nature? Or give specialized services? Could this be shifted to a central officef Answered by Problems 31, 39.
36. If processesmand processing staffs--vere centralized to what extent could present reference staffs take over processing duties left at local libraries? What would the cost bep What effect vould it have on the reference service rendered? Answered by Problems 37, 38, 39, 40, 56.
37. Would centralized technical processes malee it possible to have cards for materials in une library, of interest to a second library, put in the catalogs of the second library? Is this desirable? To what extent should it be done? Answered by Problems 21, 22.
38. Would closer cooperation, and the resulting better knowledge of what is in other libraries, result in more interlibrary loans? Or would there be a greater tendency for the workers from one institution to visit the librari es of the other schools in order to consult more titles than could be gotten by interlibrury loan? Which would be most economicali Most efficienti Answered .by Problems 17, 18, 23.
39. Would the development of a transportation system for taking materials to the center, and back asain, result in better service on interlibrary loans, and eliminate present long periods when items on loan are not available for use by anyoner Answered by Probleas 17, 18, 23.
40. How much work done by reference staffs before will now be in central office? Answered by Problems 37, 38, 40 .

## E. Other Methods than Centralization.

41. Can subject bibliographies be used in place of subject catalogs? Are they, complete enough? What vould be the cost of recording library holdings? Is it desirable? Would the recordings be accurate? Answered by Problems 5, 6, 7, 8, 9 .
42. Could the United States Catalog and the Cumulative 3ook Index serve as the catalog of the library (like a bibliography)? Does the service cover all that is in tho libraries? What supplements would be necessary? Answered by Problem 56.
43. Is itinecessary to catalog documents, or will use of the Documents Catalog, and other lists of documents suffice? Do they come out fast cnough? Are, enough documents coveredi $I_{s}$ tho classification problem simplified? Answered. by Problem $\quad$.
44. Would a printed union dictionary catalog for the area be preferable to a card dictionary catalog for each local libraryi Answered by Problems 9, 18.
45. Would a union catalog of serials serve in place of soparate serial catalogs for each library? Should it be a dictionary serial catalog? Answered by Problem 11.
46. Would a regular bibliography of new additions to regional holdings helph Answered by Problem 61.
47. Would a printed author catajog of the Library of Congress do in place of present card catalogs? Answered by Problems 1, 2, 61.
48. Would a printed dictionary catalog of the Librery of Congress do in place of present card catalogsi Answered by Problem 10.
49. Is anything more than an author catalog necessary for separate libraries? Answered by Problems 1, 2, 61.
50. Would a properly made shelf list (including added entries in many cases) make it possible to do away with the subject catolog? $A_{\text {nswered }}$ by Problem 4.
F. Operation of a Central Office
51. How would the administrator of the central office'be chosen Where would responsibility lie? that kind of control would be exercised by the individual libraries? How? Answered by Problems 13, 19.
52. Would executive control of the central of fice be bested in this Conference, with questions of policy settled in Committee of the Whole, or would au,thority be delegated to a special committeei Answered by Problem 13.
53. How would costs of operation be allocated among the member librariesi Answered by Problems 14, 15.
54. What are the major new expenses that would have to be met? Delivery system? Costs of ney tools at central office? Cost of quartersi Answered by Problems 13-16.
55. Would the delivery system be useful enough in other lines to carry part of the costsi Answered by Problems 14, 16.
56. What are the "hideden costs" of a central office that are not now always counted in most local library operation costs? Added supervision? Reports? Rent? Lighti Heat? Telephone? Correspondence? Telegrams? Insurance? Others? Answered by Problems 13-15.
57. What additional costs should be considered as part of a central office? Supervision of work in progressi Supervision of local librarians over central office? Consultation of central staff with outlying library staffs? Payments for staff at central office to do what is of ten done in local libraries by reference and other staff members? Answered by Problems 13-15.

## G. Space and Jocation for Central Office.

58. What would be the most central or convenient location for all libraries? Answerea by Problem 16.
59. That advantages would come to separate libraries because of their proximity to the central location What are the disadvantages due to distance? Answered by Problem' 16:
60. What space would be required for a central office? For office space? York space ${ }^{\circ}$ Storage of work in progressi etc. Answered by Problem 16.
61. Nould space be necessary in the central office for a regional warehouse? For duplicates and exchanges? F'or storage of unused books? For publishers' stocks? Answered by Problem 16.
62. How does location effect quick delivery of books and informetion? Can a daily delivery service be offered to the Eastern Slope? Western Slope? Answered by Problem 16.
63. What would be the cost of trunk telephone connections between center and all libraries? What would be its use, and the value of the service? Nould use for other college activities help underwrite the costi Answered by Problem 16.
64. Can Locations be found thet are rent free? Or cheap? Are they centrally located Answered bj Problem 16.

65．Would it be possible to get a donation for a buildingi A gift of an unused fire－ proof warehouse？Answered by Problem 16.

66．Would effective student，N．Y．A．，or W．P．A．help be available\％Answered by． Problem 16.

H．Equipment and Supplies
67．What tools needed for a central office are now available in cooperating libraries？National bibliographies？Special bibliographical files？Union card catalogsi Others？Answered by Problems 13，14， 43.

68．What furmiture and equipment can be transferred to central officep Card cases？ Tables and chai rs？Filing cases？Typewritersi Others？Answered by Problems 14，43．

69．What added furniture and equipment would be necessary for a central office？ Answered by Problems 14， 43.

70．What new files would be necessary in central office？Official catalog（union author or subjeごう？Union shelf list？Decision files？Files of orders out？ ＂In process＂catalog？＂Lacuni＂of libraries？Second hand offers？File of cards from other libraries？Answered by Proolems 14， 43.

71．What new tools of a bibliographical nature would have to be purchased？ Answered by Problem 43.

72．What labor saving devices would be feasible in a central office？．Billing machines？Card reproduction methods？Automatic filing systems？Card punching systems？Others？What would the savings be from the operation of such machinesf Answered by Problems 23，49．

73．What shelving would be necessary？For reference tools？Materials in process？ Dead storage？Answered by Problem 43.

74．If the center served also as a＂jobber＂how much shelving would be needed for books on consignment，or for inspection Answered by Problem 41．

75．How much shelving for little used materials might also be usefuli Answered by Problem 30，32，33．

76．If＂proved desirable to centralize：all binding，how much space and equipment would be necessary for suchworis？Answered by Problems 53， 67.

77．How much equipment would be necessary to take care of the records for a centralized control office for binding？Answered by Problems 53，67．

## I．Personnel

78．How many persons are now employed by the various libraries on work under study？ How much are they paid？What are their special qualifications？Answered by Problem 24.

79．How many of the persons at the various libraries are available for transfer to the central office？Would they work well in a larger system？Are they prepared as specialists？Answered by Problem 24.
80. How many persons would be necessary in each of the separate libraries to take care of the technical processes under any of the set-ups discussed in this report? What would be their grades and pay Answered by Problem 40.
81. What effect would centralization have on the allocation of work to the different persons left at the separate libraries? Would this have an effect on the cost of operation? On comparative costs between various methods? Would persons good at one tjpe of work have to do other things at which they were less efficient? Answered by Problem 40 .
82. How large a staff would be necessary at the central office? Answered by Problems 15, 23, 26.
83.: What would the qualifications of the central staff have to bei their pay? Their ranks? Answered by Problems 19, 26.
84. Nould specialization at the central office have any relationship to work of the Various colleges? Answered by Problems 19, 26.
85. How much more supervision would be necessary in a central officep Answered by: Problems 19, 26.
86. Would supervision, and specialization, offer any opportunity for economy in operation? Having clerical staff really do clerical work? Professional staff do only professional work? Permit development of skills (and speeds, of operation) on many of the processes? Answered by Problem 26.
87. Would•it be possible to have specialists among the professional staff in subject matter? In languagesi How necessary is such specialization? Answered by Problem 26 .
88. Would it be possible at the central office to get W.P.A. and N.Y.A. help of the kind which do so much work in the various libraries? Answered by Problem 26.

- 89. How much work is actually done by N.Y.A. and W.P.A. personnelf What is the cost of supervision What is its worth to the central office To the separate libraries? Answered by Problem 26.

90. What system of uniform grading might be possible for the central office and the various separate libraries that would insure uniformity of pait, grades, and duties in all places? How necessary is it that the group of libraries really work as a uniform system? $A_{\text {nswered }}$ by Problems 19, 26.
91. Would it be possible for specialists to make trips to the various libraries to insure that all work was done on common footing? Or to make sune that specialists understood needs of the individual libraries? Answered by Problem 26.
92. Should there be a division in such a system between the staff for subject headings and the staff for classification?. And for other specialties? Answered by Problems 19, 26.

J. Bookouying

93. Should the central office be set up as its awn "jobber"p Can it get better discounts? Would it get faster service? Could it get books on consignment or for display so that selections could be made from actual books, instead of reviewsi Would such operations meet costsi Answered by Problem 41.
94. Would it be legal for the colleges to enter such an arrangen ent? Could the center act as agent for the bookstores operated by the colleges themselves? Could it do more than just buy for the colleges? i.e, faculty members? Other public libraries in the statei Other buyers? Answered by Problem 12.
95. How much in the way of buying information would the center keep? Runs of national bibliographies? Files of bibliographical tools? Clipped items from second hand catalogs for price datai Iists of "lacuni" from the separate libraries? Catalogs of publishers? Iist from second hand dealers? Answered by Problems $41,42,43$.
96. Would all proposals for purchasing be searehed at the local libraries to make sure that actial publications were being asked for, or should all such verifying be done at the central office? Answered by Problem 42.
97. What control should the central office have over local recommendations? Should it refuse to duplicate if copies are already available (When say prices are over a certain minimum)? Should it check with local libraries for confirmation Should it suggest different titles in a subject, in order to get a greater variety in the area, when duplicating orders are receivedi Answered by Problem 42.
98. What procedure should be set up for reporting on proposed purchases? Answered by Problem 42.
99. Should central office suggest that books, which are not as good as they might be, not be orderedi Answered by Problem 42.
100. Should the central office recommend that purchases be made by various local libraries when it rec ived announcements of desirable purchases? Answered by Problem 42.
101. Should special procedures be set up for rushbooks? Should there be special charges to 'the libraries that want telegraph, air mail, or other faster service? Answered oy Problem 42.
102. What is the present set up in each local liorary? Answered by Problem 42.
103. What proportion of time is devoted to orders, gifts, exchanges, serials, etc. in the local lioraries? Will this call for a divisi on of the acquisitions ' staff between the central office and the separate librariesi Or can the reference staff handle such duties as are left behindin setting up a central office? Answered by Problems 40, 42, 56.
104. What would be the set up at central for each of the various systems proposed? Answered by Problems 13, 19, 42.
105. What processes would be duplicated at both places in any event? Answered by Problem 42.

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\text { K. The Technical Processes. }^{\text {. }}
$$

106. How can classification and subject headings made at a central office be geared to needs of local subject specialists? Ansvered by Problems 2, 3, 34, $45,46,61,62$.
107. Can varied types of cataloging (the details that go on the cards) be done in the same system for different classes of books? Can this cataloging be varied from library to library for the same book? Is it desirable, even if possible? Answered छ̣̣y Probliem 48.
108. To what extent do reference workers influence the type of cataloging, and how would that be taken care of under a centralized system? How useful is the advice of the reference help? Would it be necessary to have the techical staff at the central office do tours of duty at the individual libraries so as not to lose touch with reality? Answered by Probiem 2, 19:
109. In a centralized system are there classes of materials which should not' be treated? Pamphlets? Documents? Littlé used periodicals and books? Materials for the'reserve sheives? etc. Answered by. Problems 7, 8.
110. How far should the center go in attempting to use special terms for special needs of faculty or students at particular institutions? Answered by Problems 2, 45, 46.
111. Where technical processes are localized hoy can uniformity be secured? By sending cards to central office for approval By sending completed cards to center, in which case corrections would require the making of new cards? By sending a member of the technical staff to the libraries to do the work? Answered by Problem 20 .
112. What is the present organization in each of the separate libraries? Answered by Problems 19, 55, 56.
113. What would the organization be for each of the proposed central organizations? Answered by Problems 19, 22, 55, 56.
1.14. What duplication would there be in any case? Under each of the various plans proposed for study? Answered by Problems 19, 40.
114. What can be done at the center that is not possible at separate librariesii.e, Duplication of analytics? Added sets of cards for documents that would not othervise have been cataloged? Etc.? Answered by Problems 21, 22, 68!
115. What system would have to be set up to take care of rush books? Answered by Problem 19.
116. What shortened procedures vould be possible with added copies? Duplicates to region? Later editions? Answered by Problem 17.
117. What factors, which are not the same for all libraries, will effect costs? More analytics? More fully cataloged items? More difficult items? More difficult languages? Answered byy Problems 19, 29, 35, 45, 46, 56.
118. What differences in organization, and costs, will there be if I.O. cards are usedi If cards from other libraries are used? If original cards have to be made? Answered by Problems 47, 48, 49, 56.
119. 'How much attention shoula be paid to local idiosyncrasies, and to the needs for particular special collections? How much vould such variations cost? Should there be a, special charger Answered by Problems 2, 19, 22, 34, 56.
120. Should different types of catalogs be prepared at the central office for main libraries? For departmental libraries?. For browsing rooms? For upper division and lower division students when they are separated What would the cost of such procedures be? Answered by Problems 1, 2, 3, 4, 34, 35.
121. Should different types of entries be made for workers in different fields? Research students of literature? Social scientists? Biologists? Workers in applied fieldsi Others? What would the cost be? Answered by Problems 1, 2, 3, $4,34,35,48$.

## I. Oatalogs

123. Who uses library catalogs? What for? Answered by Problems 1, 2, 4, 36, 61. .
124. What parts of the catalog are used? Answered by Problems 1, 2,4, 36, 61.
125. How effective are catalogs in answering questions of readers? Ansuered by Problems 1, 2, 4, 36, 61.
126. What uses do staff"members make of the catalogi Answered by Problems 1, 2, 4, 36, 61.
127. Are there any substitutes for card catalogs that might be more effective? Answered by Problems 5, 6, 7,. 8, 9, 10, 11.
128. Should libraries go back to printed catalogs? Answered by Problems 9, 10, 49.
129. How uniform are the various libraries in methods and processes? Author entries? Subjectheadings? Classification? Types of cards used? Methods of recording data on cerds? Shelf lists? Serials catalogs? Accession records? Policies about analyzing sets? Cataloging documents? Handling of pamphlets and clippings? Musici Records? Answered by Problems 44, 45, 46, 48, 52.

130, What would it cost to get catalogs in all libraries uniform? How long would it take? What are the minimum changes necessary? Answered by Problems 44, 45, 46, 47, 48, 57.
131. What types of authority files (author, subject headings, series, pamphlet subjects) are keptin local libraries? What kind are needed in a Central of'fice? What other types of files need to be considered? Answered by Problems 17, 2?, 55, 56.

## M. Recataloging and Reclassification.

132. Is it necessary to reclassify and recatalog? Where should it be done? At the center? At the local libraries? Answered by Problems 19, 22, 57. .
133. Would it be cheaper to send the staff to the recataloging job, or bring the job to the staff? Answered by Problem 57.
134. How much is there to be done? What will it cost' Can it be done before a centralired office is set up? Answered by Problems 44, 45, 46, 57.
135. How much of needed recataloging and reclassifi cation would be necessary anyway whether or not there is an attempt to centralize? Answered by Problems $44,45,46,57$.
136. How much recataloging and reclassification will be necessary from time to time in the future in order to make the system workable? Answered in part by Problems 1, 61.
137. Are there any proposed systems, such as the period classification, which might be applied now, which would eliminate future redoing of technical work? Answered in part by Problem 61.

## N. Author Entries.

138. How uniform are the author entries now? Answered by Problem 44.
139. Are there any important variations from Iibrary of Congress standards? Answered by Problem 44.
140. Would new schemes of author entries-like a series of headings for official publications of Colorado-me necessary in a central system to secure uniform-, ity? Answered by Problem 44.
141. How many author names would have to be "searched" and "authority cards made" because data was not available from printed library cardsi. What effect would this have on costs? Answered by Problems 44, 56.
142. How much more careful about the exact form of author's name would a central of fice have to be than separate libraries? Does this vary from library to library? Does it have an effect on relative costs? Answered by Problems 1, 2, 19, 44, 56.

## O. Subject Entries.

143. Are the subject headings of any particular libraries more detailed, or more general than those of the Library of Congressi If so, whyt Will it be necessary to carry that peculiarity over into centralized catalogingi What will it cost? What are its advantages? Answered by Problems 2, 45, 46. .
144. Are there any relationships between special collections, and the fullness, of , cataloging? Or is it the reverse? (i.e: do small libraries make more analyticsi) Answered by Problem 45.
145. Should the local libraries, in case it is desirable, be permitted to make additional ontries in their own catal ogs for particular books? Should such cards be recorded at the central office? Would this tend to nullify any savings in cost? Answered by Problems 45, 46.
146. Are there any important variations from I. C. practices? How important are they? How easily changed? Answered by Problems 44, 45, 46.
147. How uniform are the subject headings now? Answered by Problem 45.
148. Would hny special schemes of subject headings, not taken care of by the I.C. . headings, be necessary for local collections? Special subjects? Local ... history collections? Answered by Problem 45.
149. Would it be desirable to work up a set of definitions of subject headings so that real uniformity of practice might be obtainedi Answered by Problems 20, 28.
P. Classification.
150. How uniform is classification in the various libraries? Answered by Problem 46.
151. How necessary is it that there be uniformity of classification? Answered by Problems 3, 46.
152. Is.there a scheme of classification that is adaptable to all the local libraries? Are special schemes necessary? Answered by Problems 3, 46.
153. If centralized classification is found desi rable would it be a good plan to start off with the Library of Congress classification, or some other scheme, so that old and new collections would be kept separatel Answered by Problems 3, 46.
154. If variations in classification are found desirable would it be necessary to have separate groups of classifers? Or could the same technical workers do both systems efficiently? $A_{\text {nswered }}$ by Problems $19,46$.
155. Should the union shelf list, and the local shelf lists, be expanded by the classifiers to become.more nearly a subject index of the libraries? Answered by Problems 3, 4, 51.
156. How full should the entries in the shelf list be? Answered by Problem 51.
157. What uses are made of the shelf listsi What uses can be madef Answered by Problem 51. .
158. Could a union shelf list be used as a buying guide? As an official catalog? Answered by Problem 51.
Q. Serials and Serial Catalogs.
159. Should simple additions to the serial catalogs be made at the central office, and information of changes be forwarded to the local libraries? Or visa versa? $O_{r}$ is the entry at the local library enough. Answered by Problems 11, 52.
160. How skilful must help be for such work? Is it clerical? Sub-Professional? Professional? Would clerical help note the difficulties that needed a cataloger's attention? Answered by Problem 5?.
161. How are additions to the serial catalogs handled now? Are there serial catalogs? If not, where are such records kept? Answered by Problem 52. .
162. Could a mimeographed or a printed list serve as a serial catalog better than the present set-upi If so, should it be a state union list? A regional union list? A national union list? Could this be kept up to date locally and at the center alsop Answered by Problems 11, 52,

## R. Pamphlet Files.

163. How are pamphlets handled in the various libraries now? Who gets them? Who is responsible for the headings used in the filesp Is there a correlation between the catalog and the pamphlet files? By cards in the catalogi Answered by Problems 7, 50.
164. How big are the pamphlet collections? What subjects do they coveris Are any of them particularly valuable and should any of the material be cataloged fully instead? $A_{\text {nswored }}$ by Problem 50.
165. How many pamphlets are cataloged in one 'library but put in the pamphlet files in other libraries? How should such systems be correlated? Answered by Problem 50.
166. How should the pamhlet files be correlated with the catalog under a centralized systemi By the local Reference staffi With consent of the technical staff at headquarters? By technical staff which comes out to visit the indi vidual liorariesi $A_{\text {nswered }}$ by Problems 17, 50.
167. Is any correlation between pamphlet files of the various librnies necessary? Should di scards from files of one library be sent to library making major collection on that subject? Or to a local storage depot? Any other scheme? Answered by Problems 19, 50.

## S. Card Making.

168. How uniform 'are the cards in the various lioraries' 'Can these variations be' correlated fairly easily ${ }^{\circ}$ Answered by Problem 48.
169. What are the present costs of making cards? What would it be in a central office? Answered by Problem 56.
170. Would it be possible in a central office to make cards.vith a varying amount of ' detail on them to take care of special circumstances? Answered by Problems 19, 56.
171. That machinery would have to be set up to handle making of cards for department libraries within local librariesp Or other special catalogsp Answered by Problems 19, 40, 48.
172. How many titles would have to have original cards made for them? i.e. How many have L. C. cards? For how many can cards be had from other libraries? Answered oy Problem 47.
173. What is the cost of making extra cardsi Should libraries be charged for extra cards made for them? Answered by Problems 13, 56.
174. What is the present cost of making extra cards for notification of the Bibliographical Center? Would this be eliminated in a centralized scheme? Answered by Problem 56.-
175. What special tools can be used for reproducing cards at the center? Mimeographing machinesp. $\therefore$ Off-set processes? Photographic processes? Answered by Problems 21, 22, 48, 49.
176. Would it be possible to make cards of various weights and on various qualities of card for special purposes? Notification of faculty members that material is in the library. Special card lists for individual professors? Separate catalogs for special departfents and divisions? Answered by Problems 21, 22, 48, 49.
T. Binding and Rebinding.
177. How is binding handledi By special staff? By serials librarians" By acquisitions staffi By preparation staff? By no onef Answered by Problems 53. 67.
178. What records are now kept of binding? Costs? Colors usedi Type of binding? What items are outi When returnedi Answered by Problems 53, 67.
179. How are newly returned bound volumes of periodicals added to the serials list? What other processes are followed? Answered by Problems 53, 67.
180. Where is binding done? Locallyf In library? By outside contractor?

- Answered by Problems 53, 67.
181..How would current costs of binding compare with costs in a centralized shop under direction of the center? Answered by Problem 56.

182. How far should center have charge of binding? Completely? Merely to see that binding is well done, and as cheaply done, for one place as for another Just to get additions recorded on the union serials list? What effect would this have on time taken for bindingi Answered by Problems 13, 19, 53.
183. How can central technical staff know of necessary changes on the catalog cards when binding is handled by local staffi Answered by Problemis 13, 53.
184. How much of a change would centralized technical processes make in the allocation of binding work if it were left at the local libraries? Or if it were sent to the center for handling? Answered by Problems 40, 53.
185. How many of the processes in preparation of binding will have to be duplicated in any case? Answered by Problem 53.

## U. Other Technical Processes.

186. What type of staff handles book marking? Pocketing? Platingi Other such processes in local libraries? Is it effective? Is it cheap? Answered by Problems 19, 56.
187. What type of staff would be necessary in a central office? Hould greater bulk of work, and specialízation of staff make for greater efficiency? How would cost compare with present local situation? Would it be possible to get the a same type of help as is now used? Would it be desi rable? Answered by Problems 19, 22, 56.
188. Are machines available to do much of this type of work" Are they effective? . Are they cheaper than hand labor? Answered by Problem 49.:
189. How much of this type of work would have to be done locally? Answered by Problem 40.
190. Would it be desirable to have a book repair crew at central officesi If so, should all mending and repair'work from local libraries be sent to headquarters, 'or can help be moved to the job when needed What is the connection of this work with rebinding? Answered by Problems 13, 19, 56.
191. How much duplication of such processes will be necessary under any system? Answered by Problem 40.
192. Who does the filing now in the various local libraries? Who supervises the filing? Would such supervisory help be among those probably transferred to the central office? Answered by Problem 54.
193. How much filing will have to be done in central offices? Will it be possible to reduce costs by training full time filersf Who would supervise? Answered by Proilem 54.
194. Would central filers be available for special jobs in separate libraries? Answered by Problems 24,54.
195. What would be the cost of filing the various records kept at the central office? Union catalog? Union shelf list? Union serial catalog? Authority files? Work in progress list? File of cards from other libraries? Answered by Problems 54, 56.
196. To what extent will the filing organization be duplicated in various libraries? Answered by Problem 54.
197. Is there any necessity for consistency in filing rules as between libraries ${ }^{p}$ Answered by Problem 54.
W. Cooperation under a Committee.
198. How much difference in policies should be permitted individual libraries? Answered by Problem 20.
199. How much authority should the Committee have to enforce unified action. Answered by Problem 20.
200. What procedure should be set up for making sure that problems are brought to the attention of the Committee? Will this insure that all problems are so handled: Answered by Problem 20.
201. Where material which has to be prepared for use in a hurry involves a question that must be settled by the Committee, what procedure should be followed? Ansvered by Problem 20 .
202. Would the Committee have to duplicate its decisions and send them to all separate libraries" Answered by Problem 20.
203. Shoula any attempt be made to have local practices uniform with more than a local standardi A regional standarä A national standardi Answered by Problem 20.
204. Would there be separate committees for various parts of the work? Author headings? Subject headings? Classification? Other information shown on the cards? Answered by Problem 20 .
205. Should each of the Committees hatre an executive to handie details on decisions? How much time would that take from that person's regular work? Should the cost of such service be compensated for? Answered by Question 20 .
206. If there are a number of committees would it be necessary to have their work correlated Who would do that? A committee made up of the chairmen or executives of the separate committees? A single "over-all" Chairman? Answered by Problem 20 .

## X. Final Questions.

207. When all the studies have been made, and all of the answers are in, will the net result be a sufficiently strong indication that one way or another is better than that which is being followed now? In other words, will the advantages be great enough to make it worth while to make any changes? Answered by Final Problem 68.
208. Even if no major changes are recommended, what bi-products from the studies will be useful to the libraries? In revamping policies of operation? In better technical processesi In better services to clientelei Answered by Final Problem 68.
VIII. Steps Preparatory to the Study of the Questions Raised.

The multitude of problems, as outlined in the questions above, suggests the necessity of securing definite facts on centralized technical processes and bookbuying. Facts about the present situation can be secured by study of the local libraries, but proposals for a centralized system that does not yet exist can be justified only by analogy with similar situations in large centralized university librery systems. For operations which do not exist in any present system it will be necessary to get estimates based upon carefully vorked out "blueprints" of those operations.

The following steps should be taken before the fingl organization of specific studies.

1. A Search of the Existing Iiteraturen. This has been done with negative results as far as general answers of value are concerned. Ore stwdy at the Graduate Library School of The University of Chicago on the Oregon situatior unly suggests some of the difficulties that have prevented the oregon System of E; ger Fducation from completely unifying its technical processes. $A_{s}$ a result it is evident that any studies made will have to start from the very beginning, although there is a considerable body of literature that will form a basis for certain fundamental studies.
2. Checking with Local Libraries. It is possible that some of the basic facts necessary for carefli studies are already in existence. This report should be gone over caréfully by heaü librarians and cettalogers, not only for any corrections that ought to be madc to it, but to see that this Committee is furished with a statement of data already in existence which applies to any of the Problems outlined in the next Section.
3. Distrimution to Key Librarians. If the Conference decides to carry on with the work which this minittee has outlined copies of this repori should be sent to certain key libuarians to get their rea lions as to its feasibility, and any suggestions they might have for the imp:cvenent of the outline of Problems.
4. Questionnaires to Libraries with Sinilar Problems. Some of the university systems that have videly separated campuses may have already made preliminary studies which vould be of help in the work of this Committee. It is also possible that other of the larger universities have studied, or will be rilling to study, certain parts of the problems"outlined above, and would be glad to make their conclusions available. Enswers to a simple questionnaire should show how far such data is available, or hov much cooperation might be expected.
5. Selection of Persons to Make Studies. It is proposed that, when replies asked for under 2, 3, and 4 have been received and the responses digested, efforts be made to secure help from local staff members, volunteers, students in library schools, and foundations for the conduct of the various studies outlined.
6. Correlation by a Committee. Fimally-it should be the responsibility of a committee of this Conference to insure that.all of the studies made tie in with the general needs of the whole project, and are so:correlated that the results will be comparable and useable. This Report has been made,in detail as a help in that direction.

## IX. Specific Titles of Problems.

The following outline gives examples of specific subjects that might be studied. The various aspects of the whole project-mosts, service rendered, attitudes of users, changes in present organization-all are covered, and correlated with the questions asked in Section VII. Not much is said about methods to be used for individual problems because those vary to ogreatly, al though some suggestions have been made under individual titles. In generil, the basic division of problems has been between the local libraries and the larger university libraries. The subjects have been classified by types, however, so that they may be compared more easily.

Many of the studies can be combined. For example the cost of marking books might be studied by one person for all the Colorado libraries, while another person might take the same problem for selected university libraries. Yet one person could take both groups of libraries and make a unified study. On the other hand the cost of marking books might be considered as a part of a more general study of processes in single institutions so that comparable costs would be found from a number of separate reports.

Some studies might be undertaken by individuals, while others could be best handled by committees. Certain studies are made to order for local staff members to handle in their leisure moments, others vould make excellent problems for Haster's candidates, while still others would be more acceptable as Ph. D. dissertations. . In all probability some of the problems outlined would require foundation help in order to meet the expenses inherent in them. Still others, particularly those where imagination and clear thinking rather than research are necessary, might make excellent seminar papers.

In short it is possible to do a great many things with the suggested subjects just as long as they are done with the knowledge and approval of the comittee of the Conference which is put in charge of the research program. If this precaution is not taken the results obteined may not make a complete picture for the final report.

An undertaking of the magnitude which this revort proposes should not be confined too closely to the particular needs of Colorado, or of the Rocky Mountain region. As a result some attempt has been made to state the propositions in fairly broad terms so that the results will be of service not simply to Colorado, but to the library profession as a whole. This is particularly true where the basic concepts of the use of librery technical processes and tools are being studied.

The list has been outlined under the Sollowing heads-

## Pages

A. Basic Studies on the Nature of the Technical Processes. ..... 32
B. Adminigtrative Stuadies ..... 33

1. General Policy ..... 33
2. Library Staff ..... 35
3. Library Gollections ..... 36
4. Library Users ..... 37
C. Technical Studies. ..... 37
5. Interdepartmental Relations ..... 37
C. (continued) Pages
6. Centralized Bookbuying. ..... 38
7. Technical Processes ..... 38
8. Technical Processes: Costs. ..... 40
D. Summary Studies. ..... 40

A. Basic Studies on the Nature of the Technical Processes.

1. 'Bibliographical Needs of College and University Clientele.

A fundamental study of the needs of the users of college and university libraries for the type of information which bibliographies, library catalogs, and trade catalogs provide. Results would have to be correlated with those found for Problems 2, 34 (a study of literature need.s), and to a certain extent 35 and 36. Answers questions 8, 19, 20, 21, 47, 49, 121-126, 136, 142.
2. Use of the Iibrary Catalog in College (University) Library.
A series of companion studies for certain of the Colorado libraries, and for certain universities where conditions would be most similar to a. center. Control studies should also be made for certain other well run college libraries to make sure that the Colorado libraries were typical. A study of the use made by different types of users, trained aind untrained, specialists and beginners, and of the parts of the catalogs which served the purpose of each. Would al so test the value of the sarvice, and failures to take advantage of the help the catalog can give, Correlate with Problem 1. Answers. Question 8, 20, 21, 23, 47, 49, 106, 108, 110, 120, 126, 142.
3. Use of the Library Classiciation by Non-Librarians in $\qquad$ College
(Departments of
University) Library.
A series of companion studies (as in 2) of the use of the books on the shelves, the ability of the users to find material by direct contact with the shelves, and of the usefulness of the classification. Should include a correlation between the experience and training of the users and the results obtained. In the case of the departmental libraries some effort should be made to find out whether or not the users had moremor lessmdifficulty with classifications made in a central office than with those made in the department libraries themselves. To be correlated with results of Problem 1. Answers Questions 8, 20,21, 106, 121, 122, 151, 153, 155.
4. A Comparison of the Ease of Use of Classed and Dictionary Catalogs.

Testing the use made by skilled and unskilled users of each type of catalog for various types of subjects, by: time taken to find the material wanted; validity of selections made; time taken to uncover materials on the fringe of the main subject; etc, Compare with Problems 1, 2, 3. Answers Questions 8, 20, 21, 50, 121-126, 155.
5. The Use of Bibliographies in Place of Subject Catalogs.

A laboratory experiment in the use of oibliographies vs. card catalogs, to study time taken to find materials, effectiveness of selection, and to what extent materials in the library were not found by each of these methods. Compare wi th Problems 1, 6, 7. Answers Questions 41, 42, 127 .
6. The Use of National Bibliographies in Place of Card Catalogs.

A companion piece to Problem 5, but not as completely a laboratory studyo Tests would be made of ability to pick out desired materials from the United States Catalog and the Cumulative Book Index as compared.with the Card Catalog. In some experiments "holdings" or "call numbers" might be indicated in the tools used. In other cases the users would have access to a card file of authors only, in siill others a shelf list. The experiment would be costly to set up, out could be made conclusive if properly worked out, Compare with Problems 5, 7: Answers Questions 41, 42, 127.
7. The Use of Sets of Pamphlets, Part of vhich are Analyzed in the Library Catalog and Part of thich are Listed oniy in Periodical Indexes.
A study of one phase, but perhaps a significant one, of the Bibliography vs. Catalog controversy under actual working conditions. Sets of paired series would be chosen for the experiment, and actual records kept over a '

- long period. Facts as to use made of the material, how thorough a search was being made for data, how of ten particular pamphlets were called for and similar information, would throw much light on the value to the library users of such analytics, and more fully indicate the actual utility of the library catalog in comparison with the indexes which were used. Compare with Problems 1, 5, 6, 50. Answers Questions 41, 109, 127, 163.

8. Full Document Catalogirg Compared with Use of Document Indexes.

A study of the ease of finding documents through a catalog and through document indexes, including systems of partial cataloging. Facts as to use made of the material, how thorough a search was being made for data, how of ten particular documents were called for, and similar information would be recorded, Would include an evaluation of time used in finding material compared to time taken for full or partial cataloging. Compare with Problems 5, 6, 7. Answer's Questions 41, 43, 109, 127.
9. A Comparison of the Use of Printed Catalog's with Card Catalogs.

This experiment would require the setting up of sample printed pages, and a time test would be used to record the abilities of the trained and untrained, specialists and beginners, to find information wanted. As a study of an isolated example, rather then of normal use of the library catalog, the experiment would permit of rigid control, but the results would have to be used with ceuti on. Answers Questions 41, 44, 127, 128
10. The Union Catalog as a Public Catalog.

A study of the desirability of having. the holdings of "more than one library entered in the catalog used at any single library. A study of the use made of certain union subject catalogs by patrons of the library where they are housed, and of central University library catalugs by persons who use mainly the separate departinent catalogs. Compare with Problems 5, 9, 11, and 18. Answers Questions 48, 127, 128.
11. The Need for Union Serial Lists by Areas.

A study of the periodicals special to an area, or of local holdings, not recorded in national serial lists; with particular reference to the Rocky Mountain area. Covers also the ability of the Bibliographical Center to supply inter-liorary loans without such a printed list. See al so Problem 52. Answers Questions 45, 127, 159, 162.

## B. Administro.tive Studies <br> 1. General Policy.

12. The Legal Phases of Joint Action Schemes for Colorado Libraries.
 up a "jobbers agency" for bookbuying, a joint bindery, danian for technical processes. Probably would make a good problem forbaReralduate student in law. Answers Questions 14, 94.
13. The Administration of Joint Enterprises.

A study of the administration of various types of joint enterprises, principles of supervision, allocation of responsibility, etc. Cost studies are handled by Problems. 13, and 14. Would include a study of joint enterprises other than in libraries. Compare with Problems 14, 15, 17, 20, 21, 22. Answers Questions 51, 52, 54, 56, 57, 67, 104, 113, 120, 131, 132, 173, 182, 183, 187, 190.
14. Administrative Costs for a Proposed Central Office for Technical Processes and Bookbuying.
A study of known cost factors for specific items as found in other organizations, i.e., heat, light, rent, transportation, correspondence, and other similar items of expense for each type of joint action. Nould rem quire careful interpretation to apply to the proposed situation in colorado. Compare with Proolems 13, 15. Answers Questions 53-57, 67-70.
15. The Factors Involved in Allocating Costs for Joint Iibrary Enterprises.

A study of accounting literature, of existing joint library undertakings, and other joint enterprises that might seem to have similar situations. Problem would be to evolve a fair method of charging each of the cooperating libraries for its share of expenses, of operating center. Compare wi th Problems 13-14. Answers Questions 53-57.
16. Factors Affecting the Location of a Joint Center, with Particular Reference to the Situation in Colorado.
A deductive survey of the factors to be considered, and a fact finding survey as to possible locations in Colorado, either buildings already existing, or new quarters which would have to be financed. Some attention should be paid to the possibility of such financing. Answers Questions 54, 55. 58-66.
17. Interlibrary Relations in Colorado.

A study of interlibrary loans in Colorado (borrowing and lending); how much was done in the area; how much could have been done in the area; and how much visiting by faculty members is made apart from interlibrary loans. Might well include a study of how many loans outside the area were for material-uven though asked for by specific title-which could have been satisfied by an interlibrary loan in the area. Should cover additional possibilities for interlibrary loan, such as groups of reserve books, and special collections. How much material could be secured by joint purchase? How much interlibrary reference work is done, and how many questions come to libraries that could have been handled better that way. Carries on studies reported on by A.I. A. publication on Bibliographical Centers. Compare with Problems 1, 18, 34. Answers Questions 1, 8, 22, 32, 33, 38, 39, 119.
18. The Ffficiency Point in Interlibrary Loans in Colorado Libraries.

A study of the costs of interlibrary loans to discover when it is cheaper to borrow than to buy and store. The various factors infltencing the decision must be discovered and weighed for importance, and the effect of microfilm must also be considered. (Cost of storage of a book, and cost of preparing for the shelves--two factors that are basic-are being studied in separate problems; hence it is possible that. this study should not be commenced too early.) Compare with Problems 17, 32, 33. Answers Questions 22, 32, 33, 36, 39, 44.
19. The Organization of University Libraries.

Not a cost studymbut a study of the administrative set-ups of the various libraries, the processes followed, etc. When compared with cost studies; showld answer many questions about the set-up of any proposed cential office, Compare with Problems.13, 55, 56. Answers Questions 51, $82-85,90,92,104,106,112-1.14$, 116-118," $120,131,132,142,154,166$, $167,170,171,182,185-181.190$.
20. Cooperation as a Me'ans of Joint Library Action.

A study. of what has been done under cooperative methods; some of the difficulties, encountered, and the means used to get around them. A subject requiring sound judgment and an understanding of what the problems really are. Compare with Problems. 13, 21, 22. Answers Questions 22, 111., 118, 149, 198-206.
21. The By-Products of Centralization or Cooperation. (Preliminary Report).

A study of the more evident by-products of centralization or cooperation, such as interlibrary loans, better integrated purchases, extra cards for catalogs of other institutions, etc. In large part a survey of the literature in order to make the report available for comparison, with the results of the first studies made. Compare with Problems 17, 18, 20, 22. Answers Questions $1,8,14,22,37,115,176.6^{2}$
22. The By-Products of Centralization or Cooperation. (Final Report)

A more careful study of the factors mentioned under Problem 19, wi th additional study of other factors not so evident at first glance. Would , attempt to state the concrete results obtained under such plans as those of DukemNorth Carolina; Oregon; Joint University Library; Howard Memorial-m Tulane; University of Wisconsin--Wisconsin State Historical Society; etc. Compare with.Problems 17, 18, 20, 21. Answers Question's 1, 8, 14, 22, 57, 115, 176.
23. College Libraries and the Futureo

A study of factors which are influencing the future development of libraries: Changes in instructional methods; Ghanges in ways of publication; Changes in library technique; Changes in basic theories of the purpose of library work; etc. A "judgment" or "logical deduction" study, not a research probiem. Compare with Problems 27, 49. Answers Questions 1-5, 7, $10,12,26,31,38,39,72,82$.

## 2. Library Staffs.

24. The Special Qualifications of the Staff Members of Libraries of Colleges in Colorado.
Including special technical, language and subject training and competence, and such other qualifications as might be needed for a centralized office: Study could also touch on the availability of such. staff members for work in a center. Answers Questions 18, 78, 79, 194.
25. Library Staff Status in C̣ollege Libraries in Colorado.

A study of the status, rank, pay and relationship to'security and retirement program of the various colleges, with particular reference to the situation under a centralized scheme for handling technical processes. Answers Question 18.
26. Staff Problems, at a Central Office,

A summary study of organization, grades, and other administrative problems based upon studies made on costs, organization, etc. in various individual libraries. Compare with Problems 13, 14, 15. Answers Questions 82-92.

## 3. Iibrary Collections.

27. History and Development of Collége Libraries in Colorado.

A study of the rate of growth of college libraries in Colorado, with - some reference to the general situation, including size of collections, types of collections, specialization, etc. A fundamental background stưdy. Compare with Problem 21. Answers Questions 6, 26, 31.
28. The Duplication of Titles in Colorado Libraries.

Astudy (quite possibly through the Bibliographical Center) of titles duplicated, how of ten, hov nearly duplicates were securad at the same time, and other factors which would influence the costs of variou's technical proces'ses. Indicates al so whether duplication of. subjects resulted in duplication of titles or in added titles. Answers Questions 27-29, 31."
29. Languages Represented in Colorado Libraries.

A study of the number and kinds of fareign languages represented in

- Oolorado libraries, the rate of increase, and a statement of the language needs of a centralized technical processes staff under such circumstances. Includes the possible effect of ability to handle languages on 'the acquisitions in that language. Answers Questions 30, 31, $118 .{ }^{\circ}$

30. Rate of Use of Books in Stacks of the $\qquad$ College Library.
A series of studies of the proportions of books that are used a great deal, have but oocasional use, or are but very rarely used, as a basis for the establishment of a union storage building. Would have to show the rèlationship betwpen types of books used, their general age, and other factors, and the type of user of the particular library. This same study should be repeated for all Colorado college libraries, and for'a few selected ones from outside of the state as checks on the reliability of the Colorado situation. Some atterpt should be made to see if any factual basis for a redistribution of certain collections could not be worked. Compare with Problems 32, 33. Answers Questions 12, 75, 124.
31. The Use of the Various Tools in the Preparation and Accessions Departments for Reference Purposes.
.- . . A companion study to thoso listed under "Interdepartmental Relations" but centered on the tools used to answer questions. Useful as an indication of what tools could be moved to a center without harmful effect, on local services. Compare with Problems 37-39. Answers Ques.tions 34, 35.
-32. The Cost of Storing Books in Regular Iibrary Stacks.
A study of all of the factors of cost that go into the upkeep of library stacks, including original costs, depreciation, light, heat, janitorial service, depreciation of books due to bad conditions of storage, etc. Correlate with Problems 30, 33. Answers Questions 12, 75.
32. Possible Savings from the Operation of a Union Storage Building.

A study, winch could be started on the completion of the one just above, of the possible differences between costs of operation of a regular stack, compared to a storage stack of advanced design. Not a
factual study, but one requiring good reasoning, and a constructive ima ination. Would probably require the designing of adequate' storage ' stacks. Correlate with Problems 30, 32. Answers Questions 7, 12, 75.
4. Library Users.
34. The Iiterature iNeeds of the Users of the

College Library.
A study of the types of publications necessary, the subjects covered, and the relative completeness of the various libraries, with some reference to the availability of additional literature in other libraries in Colorado or nearby states. This study should be repeated for all of the college libraries in Colorado and for a few selected ones from outside to get a relative picture. It might also be useful to make comparable studies of department libraries at some of the larger universities. Correlate vith Problem l. Answers Questions 3, 12, 22, 23, 32, 33, 106, 120-122.
35. The Distinctive Characteristics of the Clientele of the Librery.
A series of studies to be made separately for each library, but using the same formulas and methods of approach, to get differences in types of users, and effect this might have on library techniques. To be correlated with Problems 1, 34, 36. Answers Questions 22, 23, 118, 121, 122.
36. The Attitudes of the Faculty and Student Body of $\qquad$ College
(University) towards the Library and its Operation.
A series of studies of the reactions of the users of the library towards librcry catalogs, téchnical processes, time taken in the preparation of books for the shelves, and other points upon which criticisms have been made. It may be assumed that the existence of such attitudes is a fact, for all that the attitudes may not be justified in fact. To be repeated for all Colorado college libraries and for certain selected universities with situation's resembling those which might exist with centralized technical processes. Compare with Problems 1, 34, 35. Answers Questions 3, 4, 9, 23-25, 123-126.

## C. Technical Studies

1. Interdepartmental Relations.
2. Bookorder and Technical Processes Done by Members of the Service Department of the College (University) Library.
A series of comparison studies of the work, done by Reference Department Staffs, which classifies as Acquisitions and Preparations Department activities. A study which should cover each college library in Colorado, and a fev key colleges outside. Compare with Problem 31. Answers questions 34, 36, 40.
3. Bookorder and Technical Processes Done by Members of Departmental Staffs in University Library.
Companion studies to those nexc preceding, to find out if certain of those duties can be allocated to a center under university conditions. Compare wi th Problems 31, 37. Answers questions 24, 25, 34, 36, 40.
4. Reference Work Done in the Acquisitions and Preparation Department in College (University) Liorary.
A series of companion studies of the reference questions answered, and other reference services given, by the members of these two technical staffs. A companion study to the two just above. Answers questions 34-36.
5. The Reallocation of Duties in the College Library under the
Various Plans for Centralization.
A series of companion studies of what jobs would be left in each College library, the tools necessary for each, the technical skills required, and the number of staff members necessary. A study which could not be completed until certain other basic researches, such as those three imnediately above, were completed. Answers questions 36, 46, 80, 81, 103, $114,116,184,189,191$.

## 2. Centralized Bookbuying.

41. A Study of Libraries as Book Stores (Jobbers).

Including a study of college book stores, discounts, service, etc. and relationship to the college library-as a basis for recommendations for a central purchasing office. Answers questions 74, 93, 95 .
42. The Operation of the Acquisitions Department in the $\qquad$ College, (University) Library.
A series of companion studies on methods of operations, costs, division of time between different types of material (purchases, gifts, and exchanges) and other duties performed in the Department. This study should be made for all Colorado libraries, for certain key college libraries as a basis for comparison, and for selectea university libraries for data of velue to a centralized purchasing office. Answers questions 95-105.
43. Reference Collections and Files Feeded for a Large Purchasing and Central * Technical Processes Uffice.

A study of the eifturi euference rorks used by the tro departments in large university librar.es: the amount of actusl use, and the purposes of that use, as a besie jor a statement of the colliestions that should be in a centralizect ont cen Youle folude not only the reference books, but the various card files, ion cataiogs, and other tools meosssary in such an office. Comprre vitil Yrobleris 31, 37, 38, 39. Answers questions 67-71, 73, 95 .

## 3. Technical Processes.

ijote: Proolem 43 tojungs ailso in this groupo
44. A Critical Stuidy of the Futhor Feeitngs in Library Catalogs in Colorado.

A siouly of the uniforme or lack of uniformity, of author entries in college istorary entaloga ir Golorado, together with a statement of the need for sperial headings ori. ápartures from the rales of the Library of Congress. ins:rers questions 8, 17, 21, 129, 130, 134, 135, 138-142.
45. A Critical Surdyy of Siroject Headings in Lib̌rary Catalogs in Colorado.
$\Delta$ critical stuay of the uniformity, or lack of uniformity, in suoject headings in the catalogs of college libraries in Colorado, with a statement of the zeeds for departure from the headings as used by the Library of Congress insvers questions $8,17,21,106,110,118,129,130,134,135$, 143-148.
46. A Critical Stuidy of the Classifications Used in College Lioreries in Colorado.

A study of the irregularities in classification in Colorado college libraries, with some consideration of the variations in subjects treated at the iifferent institutions. Answers questions 8, 17, 21, 106, 110, 118, 129, 130, 134, 135, 151-154.
47. The Availability of Printed Cards for Materials in the College Libraries of Colorado.
A study of the proportion of new acquisitions for which I.C. cards are available, for which cards of other libraries can be had, and which would have to be cataloged at the proposed central office. The study would include a statement of how effective the cards of other libraries would be in shortening cataloging time at the center. Answers questions 17, 119, 130, 149, 17.2.
48. The Make-up of Catalog Cards in Colorado Libraries.

A study of the differences in the type of information that is put on the catalog cards in the various college libraries of Colorado, with a critical evaluation of the effects of centralization on such differences. Answers Questions 17, 107, 119, 122, 129, 130, 139, 168, 171, 176.
49. The Probable Effects of New Inventions on the Technical Processes. A study, depending more on imagination and on sound thinking than on fact finding, of new tools, new processes, and other factors which might influence future. development of a centralized office for technical processes. The study would also include processes already well developed but not generally used. Compare with Problems 23, 58. Answers questions 7, 72, 119, 128, 175, 176, 188.
50. Correlation of Pamphlet Files and Catalogs.

A study of present practices in Colorado libraries, and in large university libraries. A single study that would attempt to set up standards for the type of cooperation or centralization that might be recommended. Compare with Problem 7: Answers Questions 163-167.
51. The Shelf List.

A factual study of the shelf list, its use, kind of entry made, kind of entry that should be used, and relationship to a classified catalog. Includes also use of data from other studies, particularly Problems 2, 3, 4, 46. Compare with Problem 6. Answers Questions 155-158.
52. The Serials Oatalog. .

A factual study for several libraries of methods of recording serials in their catalogs (both Colorado and several large universities) with conclusions as to handling for a centralized office. Costs studied by Problem 56. See also Problem 11. Answers Questions 129, 159, 162.
53. Bindery Organization and Processes in $\qquad$ College (Univ.ersity) Library.
A series of compenion studies of various libraries in Colorado, a few similar ones in other states, and some large universities, to get the facts necessany for a centralized system. Costs taken care of under Problem 56. Answers Questions 76, 77, 177-180, 182-185.
54. A Study of Filing in Various Libraries.

A study of rules, basis for rules; staff needed, their qualifications; training, etc., and methods of,organization. Costs answered under Problem 56. Answers questions 192-197.
4. Technical Processes: Costs.

Note: Other cost studies are proposed under Problems 14 (Administrative costs), 15 (Allocation of Charges), 26 (Staff at central office), 32, 33 (Cost of storing books), and 42 (Acquisiti on departments).
55. An Over-All Study of the Costs of Technical Processes in $\qquad$ College (University) Library.
A series of companion studies based upon general figures, without an analysis of specific processes - to be used as a check against the total figures of the various separate processes as outlined in Problem 56. To be made for typical Colorado college libraries, and for a few outside for checking purposes. Wight also serve, when compared with similar costs for large university systems, or centralized groups, as a first indication of * possible effects of centralization on costs. Answers Questions 11, 15, $16,112,113,131$.
56. A Detailed Cost Study of the $\qquad$ Process in the $\qquad$ College
(University) Library.
A series of companion studies on a great number of separate processes, in a number of different libraries, both in Colorado and outside the state, made as a basis for obtaining true costs of decentralized and centralized cataloging. Costs for such separate processes will have to be obtained before it will be possible to determine which processes should be centralized and which left to individual libraries. The full list of specific processes given above under Section VI should serve as a guide in selecting subjects to be worked on. Answers Questions 11, 15, 16, 36, $103,113,118-120,131,142-143,145,169,170,173,174,181,186,187$, ' 190, 195.
57. A Critical Study of the Costs of Recataloging and Reclassification.

A study of the actual costs in libraries where it is being undertaken, if possible in connection with a cost study of the catal oging of new materials. Necessary for estimating the cost of redoing Colorado libraries in order to make them uniform. Answers Questions 11, 15-17, 130, 132-135.
58. A Study of the Costs of Reproducing Cards by New Methods.

Costs of cards, as made now in various libraries, would be studied as part of the project listed above (Problem 56). This study is to cover the use of new processes not yet in general use, but which show promise of being adaptable either to large or small libraries. Compare with Problems 23,49. Answers Questions 11, 15, 16, 112.

## D. Surnmary Studies

59. Summary of Cost Studies.

A summary of the results found in Problems 55, 56, 57, and 58, answering not only the questions noted under those write-ups, but Questions 9,15 , and 16 as well.
60. Summary of Results on the Current Situation and the Condition of the Various Catalogs.
A summary of studjes on the present'set-ups in the various libraries, interlibrary loans, the conditions of the various catalogs, shelf lists, filing systems, care of pamphlets, etc. Covers results from Problems 17, $18,36,44,45,46,47,48,50,51,52,54$. In addition helps to give a fuller answer to Question 2. Compare with Summary Studies 59, 64.
61. Summary of Studies on the Use and Purpose of the Catalog.

Covers present use of the catalog, substitutes proposed for it, and improvements suggested. A summary of the findings of Problems 1, 2, 4, 5, 6,7, $8,9,10,11,36,44$. In addition answers Questions $47,49,106,123-126,136,137$.
62. Summary Study of Classification Problems.

Covers findings as they relate to classification, shelf ilsts, and. classed catalogs, as determined in Problems 3, 4, 36. Answers Question, 106.
63. Summary of Studies on Bookbuying.

Covers the results as determined by Problems 12, 14, 41, 42, 43.
64. Summary of Studies of Library Collections.

Covers duplication of titles, languages, reference works, use of the collections, and possible storage difficulties. A sumnery of the findings of Problems 1, 27, 28, 29, 30; 31, 32, 33, 34.
65. Summary of Studies on Operation of Center.

Covers the operation of a possible center, and its influence on conditions in the local libraries, the legal status of a center, the bi-products of joint action, and the effects on staff, services and book coliections. A summary of the conclusions reached in Problems 12, 13, 14, 15, 16, 19, 21, 22, 23, 24, 25, 26, 31, 37, 38, 39, 40; 49. Also answers Quastion 14.
66. Summary of Studies on the Users of the Library
Covers their bibliographical needs, the differences between users'in various libraries, and to a certain extent their needs as to material., Sumnarizes the findings from Problems 1, 34, 35, 36. Answers Question'?23.
67. A. Summary Study of Binãing.

Summarizes the findings of the vari ous studies made under Problem 53 and therefore ans:rers Questions $76,77,177,178,179,180,185$.
68. Final Summary Study.

Covers the feasibility of some form of centralized technical processes and bookbuying for the college libraries of Colorado, and in that respect constitutes the final report of the commitiee set up to carry out the studies. Is not only a summary of the findings of the Summary Studies 59 through 67, but includes the findings of Problems 20 and 49, and any other data that is pertinent. In that respect is the final answer to Questions $1,2,5,115,207$, and 208 .

## X. Problems Grouped in Order of Importance

The following groups ive a suggested order in which the proposed studies might be attempted. While fundamental subjects have been listed first, since a continuation of the whole program might well depend upon the results of the first few studies, it should be remembered that the most important benefits may come as by roducts $\hat{\text { o }}$ of joint action. The problemslisted in the first group will be of importance in determining the future nolicies of each library no matter what is done about joint action.

No attempt has been made to indicate the relative difficulty of the problems or to designate who should undertake them. It was felt that such selection should not be made until specific persons had indicated a rillingness to undertake part of the
research. At that time it would be possible for the committee in charge of the project to pick the persons best fitted by interest, training, ability and opportunity, to undertake the most urgent problems.

First Group. Part A. The Nature of the Catalog.

1. Bibliographical Needs of College and University Clientele.
2. Use of the Iibrary Catalog. (First Studies)
3. Use of the Library Classification. (First Studies)
4. The Use of Bioliographies in Place of Subject Catalogs.
5. The Use of Sets of Pamphlets, Part Cataloged, Part Not.

First Group. Part B. On Joint Action.
12. The Legal Phases of Joint Action Schemes.
28. The Duplication of Titles in Colorado Libraries.
44. A Critical Study of the Author Headings.
45. A critical Study of Subject Headings.
46. A Critical Study of the Classifications Used.
55. An Over-AII Study of the Costs. (First Studies)
56. Detailed Cost Studies (On most important processes)
21. By-Products of Centralization. (Preliminary Report)

Second Group. On Joint Action.
27. History and Development of College Libraries.
49. The probable Effect of New Inventions.
57. A Critical Study of the Costs of Recataloging.
58. Costs of Reproducing Cards.
17. Interlibrary Relations in Colorado.
56. Detailed Cost Studies (On other important subjects)
14. Administrative Costsfor a Proposed Central Office.
42. The Operation of Acquisition Departments, (First group)
47. The Availability of Printed Cards.
41. Libraries as Book Stores.
55. An Over-All Study of the Costs. (Added studies)

Third Group. Part A. The Nature of the Catalog
2. Use of the Library Catalog. (Additional Studies)
3. Use of the Liorary Classification (Additional Studies)
4. A Comparison of Classified and Dictionary Catalogs.
6. NTational Bibliographies in Place of Card Catalogs.
8. Document Cataloging Compared with Document Indexes.
9. A Comparison of Printed Catalogs with Card Catal ogs

Third Group. Part B. On Joint Action.
18. The Efficiency Point in Interlibrary Loanse
15. Allocating Costs.
16. The Location oi a Joint Center.
24. Qualifications of the Staff Members.
25. Iibrary Staff Status in College Libraries.
37. Bookorder and Tecinical Processes Done by Members of the Service Departments. (All of Series)
38. Bookorder and Technical Processes done by Members of the Department Staffs. (All of Series)
39. Reference Wotk done in the Acquisitions and Preparations Departments. (All of Series.).
29. 'Languages Represented in Colorado Librariesa
34. Literature Needs of the Users. (All of the Series)

Fourth Group. On Joint Action.
36. The Attitudes of the Faculty and Student Body. (All of Series)
35. The Distinctive Characteristics of the Clientele. (All of Series)
19. The Organization of University Libraries.
20. Cooperation as a Means of Joint Library Action.
54. Filing in Various Libraries.
13. The Administration of Joint Finterprises.
40. The Reallocation of Duties. (All of the Series)
53. Bindery Organization and Processes. (All of Series)
26. Staff Problems at a Central Office.
51. The Shelf List.
52. The Serials Catalog.

Fifth Group. Part A. The Nature of the Cataloge
10. The Union Catalog as a Public Catalog.
11. The Need for Union Serial Lists by Areas.

Fifth Group. Part B. On Joint Action.
23. College Libraries and the Future.
31. The Use of the Various Tools in the Preparation and Accessions Departments for Reference Purposes.
'32. Storing Books in Regular Library Stacks.
33. The Operation of a Union Storage Building.
30. Rate of Use of Books in the Stacks. (All of Series)
43. Reference Collections and Files Needed for a Larger Purchasing and Central Technical Processes Office.
48. The Make-up of Catal og Cards.
22. By-Products of Centralization or Cooperation, (Final Report)
42. The Operation of Acquisition Departments. (Rest of Studies.)
50. Correlation of Pamphlet Files and Catalogs.

Sixth Group. Summary Studies
59. Cost Studies.
60. Current Situation, and Condition of the Various Catalogs.
61. Use and Purpose of the Catalogs.
62. Classification Problems,
63. Bookbinding.
64. Iibrary Collections.
65. Operation ol Center.
66. Users of the Jibrary.
67. Binding.

Seventh Group: Final Sumnary Study.
68. Final Report of the Cormittee in Charge of Investigations: ,
XI. Conclusions of the Committee.

The specific recommendations of the Committee can be stated very easily. They are -

1. Libraries are facea with the necessity of re-examining their technical processes.
2. Centralized technical processes and bookbuying may offer a solution to present difficulties.
3. The problems involved are too complicated to be settled without careful and detailed study.
4. The subjects which have been outlined above cover the essentials of the program, and are capable of being studied objectively.
5. Fundamental stuaies on the nature of the catalog and its use in college and university libraries should be made a part of the project so that any future developments may be based upon sound principles.
6. The Committee is not willing to propose any one'system of centralization or cooperation"over another, butit does hope that the results of the first studies will help the individual institutions to prepare'for the adopti on of whatever system may be found to be the most economical and productive.
7. Even if some system of centralization or cooperation is not found to, be desirable the results from the outlined series of studies will in themselves be worth while.
8. It is proposed that this report be sent to key librarians, the various library schools, and the educational foundations for their criticisms and comments. Official requests for aid from foundations should be made after the volunteer workers on various projects had done enough spade work to indicate that the whole project was definitely worth while.,
9. As soon as answers are recaived from the key librarians, and the replies studied, particular persons or institutions should be alloted individual problems.
10. Work should be begun at once so that by the time settled conditions return it will be possible to show enough progress to warrant the financing of more difficult studies by some educational foundation.
11. All studfes should be under the direction of a committee of this Conference.
12. This Comittee suggests that the following subjects; which are the most fundamental or basic, be the first tq be attempted by the cooperating, workers:
13. The Legal Phases of Joint Action Schemes.
14. The Duplication of Titles in Colorado Libraries.
15. Over-All Study of the Costs of Technicial Processes i.n "A" College Liorery of Colorado.
16. Over-All Stuky of the Costs of Technical Processes in "B" College Iibrery of Oolorado.
17. By-Products of Centralization. (Preliminary Report)
18. A Critical Stuay of the Classifications Used.

At the same time the Committee urges that as many as possible of the basic studies on the nature of the catalog be started immediately since many of them will require long and careful research and study.

As a side light on the situation there follows (Appendix I) a Memorandum by Mr. James G. Hodeson on A Printed Union Catalog for tie Area. This statement of a possible future development should have. consideration at this time because of its connection with the current work of the Committee, even though it is not to be considered as one of the recommendations of the $C$ qumittee.

Respectfully submitted,


Victoria Siegfr ied, Chairman
(University of Colorado, Boulder, Colorado.)


## Appendix I

A PRINTED UNION CATALOG FOR THE ARBA
A. Memorandum by James G. Hodgson

At a meeting at the School of Librarianship of the University of Denver on March 9, 1942, called to discuss cooperative library problems with Dr. Herbert A. Keller, Director of the Experimental Division of Library Cooperation of the Library of Congress, I made some statements about the possibility of a printed. union catalog for the Rocky Nountain region. This is a more orderly presentation of those ideas.

Rather continued thought on the subject over a number of years has given me a chance to check many of my ideas against actual situations as I thought I have seen them in a number of different libraries, and the result has been rather gradual change in the form which those ideas have taken. As the research of librarians brings ner facts to bear on the situation there should be additional change but the following outline represents what seems to be a reasonable expectation for the net too distant future.

## I. Basic Principles

There are certain assumptions which must be accepted as a basis for thinking. Quite a number of then are susceptible of actual study-mand fact determina-tion-mbut for the time they will have to be accepted at face value.

First is the assum tion that we should confine our inter-library relations, particularly in the fiel $\alpha$ of inter-library loans, as well within the boundaries of our orn area as we can. This is because we can afford to be particularly generous with each other when we make matual plans. The larger libraries, outside of the area, are likely to get tired of playing "warehouse" for us, and begin to cut on the services rendered unless we hoip ourselves first.

Second, the neac for a subject catalog is imperative. Many of the best workers in certain fielasm-like liter ture for example-need mainly to know the locations of particular books, and can usually ask for them by author. However, a very great share of the users of our libraries want to know what is available by subject, and authors mean little to them until after the materials are found. These users are not only undergraduates and advanced students, but research worisers as well.

Third, beceuse of the limited book supply in the area, it is desirable to know what is nvailable at other places. More and more, research must cover many allied suivjects before the job at hand can progress. Thus research vorkers want to see a great number of articles and books in order to select from them the fev that have material that will give them the added background needed for particular problems. In a surprising number of cases it is cheaper and more convenient for the worker to visit the other libraries and see the material
itself rather than borrow by interlibrary loan. Hence the desirability of knowing fully what there is in the area, so that a decision as to inter-library loan or wisit can be made intelligently.
,
Finally of course all of the observations that follow are more or less subject to the practical limitations expressed under headings VII and VIII of this mem orandum.

## II. A Printed Union Catalog as the Public Catalog

Should a Printed Union Subject Catalog of the various units in the area be completed it could very well serve as the public dictionary catalog of the various unit libraries if--

1. It is not too completem-that is if the holdings of the individual libraries are not so buried among the holdings of other places as to make the catalog unvieldy. It has long been my contention that department libraries should have in their catalogs entries for all other materials on the campus on the fields. covered by that departmental library. One of the real objections to such a plan is the difficulty of finding out what is in the department because of the great number of cards for items in other places. A "printed" catalog, which lists from 25 to 50 entries on any single page can probably cover a whole area-such as that of the Rocky Mountain region-mand atill not be too cumbersome. I feel however that the system would break dom from mere size alone if entries for more than any such single area were included.
2. If it can be reissued fairiy regularly so that it will not be out of date, and so that too many supplements do not have to be consulted.
3. If call numbers for particular libraries can be put on when made so that the quite heavy labor of copying call numbers into the new issues, and the inevitable errors that would occur in any copying, cam be avoided. Naturally, if all of the libraries have the same classification scheme, to the last detail of author numbers, this will be taken care of automatically.

## III. Records Needed in Individual Iibraries.

With such a "printed" subject catalog, no library would find it necessary to keep its old card catalog, but would replace it with many copies of the new tool. It is probable thet several copies would be displayed in the places formerly used by the puilic catalog. Added copies of course vould be available in the various special reading rooms, and departmental libraries. Other copies of the catalog could be kept in certain central places were faculty members, research workers, and even students gather, and the library would depend upon telephone service in place of personal calls in supplying items.

But even if a "printed" union subject catalog is made in a central office, each . individual library would have to have a number of other records just a s a departmental library does when all of the units are on the campus.

The shelf lists of the various libraries and departments would have to be kept for inventory purposes, and for certain of the other uses to which such a tool is put. Under the circumstances it might be desirable to have the entries therein a bit fuller than usual. It is even possible that the shelf list would be made available for public use as a "Classified" catalog and some effort
might be made to include added entries for many of the titles. Thus, the shelf list would serve as a "short cut" on oc casion where it was not necessary to use the larger and more complete catalog.

Some file of new acquisitions for which entries have not yet appeared in the supplements of the union subject catalog, would of course be necessary . In no case would such a record be very large, or cover a great period of time.

## IV. Cataloging Staffs at the Various Libraries.

Just what staff would be necessary at the various libraries would of course depend to what extent the union catalog was made at a single headquarters, or at the various individual libraries on a cooperative basis. On the supposition that the actual cataloging would be centralized, it would then be necessary to have at the various libraries:

1. Help to initiate the original orders for books, and see that purchases were properly handled.
2. Filing clerks to take care of the shelf lists, and temporary files.
3. Assistance to see that the pamphlet and clippine files were kept in order, and that the catalogs and such files were properly correlated. In many cases the reference staff would take care of such matters as a part of their regular duties, just as is now done in departmental oollections in large libraries.
4. Assistance in caring for depository document sets.

## V. The Union Catalog and The Pamjhlet, Clipping, and Document Files.

Since all libraries have a mass of material that is not fully cataloged but kept by various filing systems, some effort would have to be made to have those systems correlated. This is particularly true in the case much meterial which would be cataloged in one library is put into pamphlet files in another. Naturally, one does not like to borrow, on interlibrary loan, materials. already in the pamphlet files.

Cross references to the pamphlet files would be one of the first things which would have to be made. Fither those entries could be written into the copies of the union catalog kept in various parts of the library, or a spmarate list of subject headings of the collections could be kept with the catalogs. If the material was to be kept permanently it would be cataloged. If it only be kept until outdated or superseded, then copies from the pamphlet files, when discarded, would be sent on to the libraries which would catal og and preserve such materials.

In any cooperative cataloging scheme one of the stumbling blocks is the variant handling of government documents, particularly those of the federal government. All libraries catalog some, but most of them have many that are nat cataloged If those documents that any single library wanted cataloged were entered in the union subject catalog then all libraries would have a fairly complete catalog of their oun holdings.

## VI. Would Period Classification Help?

If a fully adequate union subject catalog is to be evolved there must be some uniformity of classification. Possibly this would mean a reclassification of many of the libraries, or at least a large proportion of them. If this is to be done, it micht be desirable to adopt the "period" classification scheme from the beginning. In this scheme particular periods of human civilization are treated as units so that classification schemes and subject headings can be made to conform to usages of that period.

In most libraries in this area, the greater share of the books are those published in what would be the "current period" in any scheme of classification, and acquisitions for the earlier periods are not heavy. $A_{s}$ a result, if materials for various. periods can be treated separately, both as to classification and subject headings, the catalogs $f$ or those periods vould not have to be reissued so often, and attention could be concentrated on the volumes for the linter periods. Also fewer copies of the catalogs for the earlier periods would be printed-a saving in the expense of operation. Colorado State College would probably have one copy only of the catalogs for all early periods, but a considerable number for the very last period.

With subject headings from different neriods somewhat varied, it would be necessary to define thern. There is considerable argument that this should be done in card catalogs, but the technical problems of how to do it would be much simpler in a "printed" catalog than in any card catalog. There is probably not too much overlapping of materials on the earlier periods in the libraries in the area. In that case present classification numbers on the books could still be used, and a mark for the period adied to the ctual books on the shelves.. In this way the burden of reclassification could be confined to the materials in the very last period.

Just what would constitute the verious periods is a matter that would take much study, but if the advantages outlined are real, such labor would not be particularly out of line with the benefits derived.

One class of material, periodicals, might need special treatment. While entries for any of the periodicals published in any one period-mor dealing with that period from a scholarly point of view-would have to be noted in the catalogs for these periods, it would still be necessary to have a separate olphabetical list of periodicals and serials held in the various libraries.

## VII. What Cheap Methods of Reproduction are Necessary?

It is obvious that if such a proposed union subject catalog is possible there must be some cheap, effective, and quick method of reproducing it for distribution.

Some of the photographic or off-set printing methods which are now being demonstrated have possibilities and may later be sufficiently cheap, reliable, and quick to offer a solution. Progress is being made at a great rate, and is entirely possible that sometime within the next fifteen years a process that will be entirely setisfactory may be developed.

Methods of reproduction by film or by reduced type already are cheap enough for practical purposes except that such a large public catalog should be usable
without a reading machine. If the catalog is in reduced page form, at least one reader would be necessary for every person using the catalog at any time. If the catalog is on reels, then a separate machine for each reel is necessary. With multiple copies of the catalog in prospect, this feature presents a real expense angle.

Some mention has been made of the possibility of using punched cards for certain phases of cataloging work. If a master card containing the catalog entry, all holdings, etc. could be punched so that this one card could be automatically shuffled so as to serve under all subject headings, title and author entries, then the cost of producing the main catalog might be quite markedly reduced. This method might be too expensive for any except large scale work, and therefore would show its savings only in a central system. A punched card of that sort would normelly file in the catal og as an author entry. When time for printing the catal og came, each card would be filed in the first alphabetical place it would come. When reproduced there it would be automatically filed in the second spot, and so on until it had been reproduced as many times and in as many places as good cataloging dictates.

## VIII. What Must be Done to Get Such a Catalog?

The practical difficulties in the way of such a union subject catalog are enormous, but not unsurmountable. The need for a cheap, reliable, and rapid method of reproduction is of course emong the first to be considered. As. noted it is entirely possible that within fifteen years such methods may well be available. At any rate if progress is not made by one method, it is highly probable that other and better methods will be devised along other lines.

But if union subject catalogs are to be issued, it is obvious that considerable ground work will have to be done first. Some of the important activities are:

1. Uniform classification schemes. It was once thought that both the D.C. and I.C. methods would promote uniformity so that readers could go from one library to another and find the same book in the same place in all libraries. Putting the classification numbers on all I.C. cards has probably made for much progress in this direction, but the differences, particularly in the Rocky Mountain region, between separate libraries are still very great.
2. Uniform subject headings. Everyone uses the L.C. headings, but even here uniformity is more notable for its deviations than for its conformation. Probably this one irregularity could be most easily corrected. It could be done by the central office, and if a printed union catalog was contemplated, no attempt would be made to change the individual card catalogs.
3. Uniform author entries. This has probably been pretty well secured already.
4. Final development, at the Bioliographical Center, of a complete dictionary catalog by author, subject, and title. This would have all the information necessary for reproduction of the final catalog. Probably such a central file could best be secured by centralized cataloging, but it is also possible to get the same result from careful and villing cooperation.

## IX. Conclusion

This memorandum starts out on the assumption that a union subject catalog for the region is possible. It then outlines what such a catalog might look like, and how it would work. In the last two sections before this conclusion, the actual practical difficulties in the way have been stated. These difficulties are enormous, but they are actually no greater than those that faced the people who proposed card catalogs, classification schemes, and organized library service in the early years. At least we should carefully consider the implications of such a catalog as the one proposed. If it will take fifteen years to get good uniformity in the library catalazs of the area, and feasible methods of catalog reproduction are developed in aoout the same time, it just might be smart to start working towards the future ideal union subject catalog right away. At least it is an idea.
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