

STATE OF IOWA

1922

REPORT OF THE
STATE PRINTING BOARD

FOR THE

Period Ending June 30, 1922

MEMBERS OF BOARD

Ex-Officio:

W. C. RAMSAY, Secretary of State, Chairman

GLENN C. HAYNES, Auditor of State

BEN J. GIBSON, Attorney General

Appointive:

J. C. GILLESPIE, LeMars

W. R. ORCHARD, Council Bluffs

ROBERT HENDERSON, Superintendent of Printing

Published by
THE STATE OF IOWA
Des Moines

WHAT STATE PRINTING IS FOR

The State's printing requirements, with respect to the uses to which the printing is put, may be divided roughly into five classes as follows:

1. *Utility Printing.* This includes stationery and all manner of forms and circulars of instruction and information necessary to enable the departments and institutions to function as required by law. It requires perhaps 2,000 or more printed forms to enable all of the state officers and institutions to carry on their work.

2. *Department Reports.*

3. *Informational and Educational.* This includes books, bulletins, booklets, circulars, broadsides, etc.; all printing in whatever form that is designed to carry to the public information and instruction meant to be of help to the people in their every day problems and contacts. There is a vast amount of this, originating chiefly with the experiment stations and extension departments maintained by legislative authority at Iowa City and Ames. The Department of Public Instruction, Dairy and Food Department, Board of Health and other departments have requirements of this kind. Codes, code supplements, session laws and laws of many sorts in pamphlet form are included in this general classification; also scientific and technical publications.

4. *Publicity.* The institutions at Iowa City and Ames, and in less degree the college at Cedar Falls, carry on a constant publicity campaign. The annual catalogs, supplements thereto, announcements, bulletins, programs and the like are along this line. State house requirements under this head are nil.

5. *Legislative printing.*

LETTER OF TRANSMITTAL

HON. N. E. KENDALL, *Governor*

SIR: In compliance with Sec. 7, Ch. 286, 39th G. A., I have the honor to transmit to you the first official report of the State Printing Board as organized under the Printing Law of 1921.

Very respectfully,

ROBERT HENDERSON,

Superintendent of Printing and Ex-officio Secretary of the State Printing Board.

STATE PRINTING BOARD

ADMINISTRATION

ROBERT HENDERSON.....	Superintendent of Printing
GRACE LANE.....	Assistant Superintendent
NORMAN HILL.....	Assistant Superintendent
LOUISE KNOP.....	Record Clerk
MRS. CORA DAY.....	Multigraph Operator
WILLIAM PRICE.....	Document Shipping Clerk
JACOB RUSSELL.....	Assistant Document Clerk

STATE PRINTING BOARD

REPORT TO GOVERNOR AND GENERAL ASSEMBLY*

For the first time in the State's history, there is attempted in this report a comprehensive survey of the State's printing affairs. This survey is made possible by the present state printing law and the organization set up thereunder.

Chapter 286 of the Acts of the Thirty-ninth General Assembly, establishing the present State Printing Board, became effective upon publication on May 5, 1921. On the same date, the ex-officio members of the Board—Secretary of State W. C. Ramsay, Auditor of State Glenn C. Haynes and Attorney General Ben J. Gibson—met and assumed control in a preliminary way. The working force and general plans of the former Printing Board were continued temporarily.

One of the outstanding features of the law is the provision that the membership of the Board shall include by appointment of the Governor two men of experience in the printing trade. Under the former statute the board consisted entirely of ex-officio members. This meant only a remote chance that any of the members would have any practical knowledge of the subject in hand.

On May 6 Governor Kendall designated as the two appointive members, Mr. J. C. Gillespie of LeMars to serve until July 1, 1923, and Mr. W. R. Orchard of Council Bluffs to serve until July 1, 1922.** These appointments comply with the requirement of the law that the appointees should have a record of at least five years actual experience in the printing trade.

The full membership of the Board held its first meeting on May 10, 1921, and the organization was perfected by the selection of Mr. Ramsay as chairman.

At a meeting of the Board on May 27, Robert Henderson was appointed to the position of Superintendent of Printing, effective June 1, and that is the date upon which the new Board may be said to have assumed actual charge of the State's printing.

Owing largely to misfit earlier legislation and to war and post-war conditions, the State's printing matters had gotten into a deplor-

*The fiscal features of this report pertain to the year July 1, 1921, to June 30, 1922. The administrative portions cover the experience of the Board from the beginning of its activities on June 1, 1921, to December 1, 1922.

**Mr. Orchard was, on June 26, 1922, reappointed by Governor Kendall for a two-year term beginning July 1, 1922.

able tangle. In addition to the printing problem as a whole, the Board was at once confronted with two major difficulties: First, a vast amount of printing which normally would have been executed and paid for and out of the way during the preceding year and a half now piled up entirely untouched, for the most part, but with a small portion in the preliminary stages of execution; and, second, contracts which had been let under the old law and which had seven months to run before terminating.

DEFERRED PRINTING

The deferred printing thus bequeathed to this Board included the Official Register, already under contract and a small portion of the work done and the paper stock for it bought, all on a basis that made the total cost of the 40,000 copies come to \$29,675.10. There were also thirty-five departmental reports and major documents which had accumulated during the year and a half that the printing end of the State's business was at a comparative standstill. The law required that these reports be published. An item of special significance in this situation was the Course in Citizenship prepared by the Superintendent of Public Instruction as directed by the Thirty-eighth General Assembly (Sec. 2, Ch. 406). The manuscript for this had been on hand for six months with nothing done. The Superintendent of Public Instruction fixed 100,000 as the number of copies required to comply with the legislative mandate. On recommendation of the Printing Board, Superintendent McClenahan split the book into four parts, with an edition of 25,000 for each part. The field could be effectively covered in this way and it meant a saving of approximately \$4,000 on the job, compared with the cost of a straight edition of 100,000 copies; but even so, an outlay of \$5,866.96 was involved. There were many smaller items in like cases, as well as the belated departmental reports.

The Printing Board, as a matter of course and of necessity, accepted this burden handed down to it as a result of the earlier confusion and inability on the part of the State to function with regard to printing matters, and the task of bringing things into order and up to date was entered upon at once.

It is not possible to draw a line and list separately all of the work that should have been out of the way, and be entirely exact about it, but all in all it is a conservative estimate that the expense thus shifted from the old administration to the new amounted to \$60,000. This sum goes to swell the total for the fiscal year covered by this report.

OLD CONTRACTS

Aside from the Official Register, already mentioned, the unexpired contracts bequeathed to this Board covered some book jobs, the general run of printing for state house requirements, Highway Commission work, and motor vehicle supplies. The Board felt that the State had at least a moral obligation to carry out these contracts, or most of them. Some modifications were secured by negotiations with the contractors with regard to the book jobs, a part of which are shown as follows:

	Old Contract Price	Amount Actually Paid
Banking Report	\$2,101.58	\$ 498.15
Teachers Proceedings	510.00	282.25
Vol. II 1920 Insurance	1,124.31	1,033.19
Highway (1919) Report	1,436.33	1,293.33
Treasurer's Report	752.31	522.90

Others of like character might be enumerated. It should be said that these reductions were affected entirely by reducing the size of the book and the number of copies to be issued and the number to be bound in cloth. The job as it finally issued from the press was paid for proportionately on the basis of the old contract. That is, the contractor merely forewent a part of the work.

Comparisons set forth elsewhere in this report illustrate the character of the contract covering the motor vehicle work.

The contract covering the Highway Commission's work appeared not to have been regularly entered into and was not honored by this Board except for the period of time necessary to make other provision.

For the most part, what the Board did under these old contracts was to carry them out as the only honorable course, notwithstanding that they were a great handicap in getting things reduced to a business basis. There was this one advantage: These old contracts afforded an outlet for a part of the work at a time when the accumulation of belated orders was very burdensome and constituted an immediate problem. There had to be some way to work out from under the heap and bring order out of chaos.

OLD AND NEW PRICES

As the law now allows the Printing Board more latitude in the matter of classification of work, there is opportunity to effect considerable savings by the simple device of divorcing long-run jobs from the general classification and buying each such long-run job separately.

This new practice could not be put into operation until January 1, 1922, for the reason that contracts let under the old law, with rigid classification, did not expire until then. The following examples illustrate results obtained:

	Old Price	New Price
100,000 blanks 5½x8½ printed one side, blocked in pads of 100, for Motor Vehicle department.....	\$153.89	\$30.00
50,000 Delinquency blanks 5¼x7, printed two sides, padded 100 to pad, for Hotel Inspection Department.....	137.78	25.00
12,000 Blanks 5½x3¼, printed one side, for Industrial Commissioner.....	19.49	6.50
20,000 Duplicate voucher blanks, 9½x12, printed one side, for Auditor of State.....	28.89	15.00
25,000 Monthly report blanks, 9½x12, printed one side, for Motor Vehicle department.....	32.50	12.50
20,000 Record cards, printed two sides, 3x5, for Board of Educational Examiners, three forms, 5,000, 5,000, 10,000.....	75.24	14.00
50,000 Mailing labels, 5x5½, gummed on back ¾-inch, printed one side, for Bacteriological Laboratory.....	118.89	28.50
50,000 Index cards, 6x3½, printed one side, for Bacteriological Laboratory.....	68.89	20.00
20,000 Certificates High School credits, 8½x11, printed two sides, for State Board of Education.....	59.78	27.00
160,000 Application blanks, 8½x7, printed two sides, pads of 100.....	455.78	80.00
15,000 Claim blanks, 8½x11, printed two sides, for State Printing Board.....	47.78	20.00
12,000 Sanitary Reports for Hotel Inspection department, 8½x11, printed one side.....	19.19	12.20
40,000 Accident Report blanks, 8½x28, printed two sides perforated twice.....	248.60	125.00
15,000 Corporation report blanks, 8½x11, printed two sides, for Secretary of State.....	43.78	22.00
12,000 Report of Inspection, 8½x11, printed one side, for Hotel Inspection Department.....	19.19	12.20
30,000 Blanks—two forms—10,000 8½x14 and 20,000 8½x7, both printed one side, for Industrial Commissioner.....	47.78	37.50
25,000 Blanks 8½x11, printed one side, punched two holes, for Psychopathic Hospital.....	61.59	21.00
100,000 Highway Commission Voucher Blanks, ruled, printed, punched.....	684.10	195.00
160,000 Hunters License Blanks.....	2100.00	350.00
25,000 Form 0 for Veterinarian, ruled and printed in quadruplicate, padded.....	439.17	114.90
5,000 Scale report blanks in triplicate, bound.....	81.44	22.50
25,000 8-page booklets for B. V. D. control.....	132.50	112.50
25,000 Truck License Application Blanks.....	36.14	23.00
15,000 Treasurer's Notice of Appraisalment.....	46.28	25.00
12,000 Inheritance Tax blanks.....	56.60	45.00
15,000 Dismantled Notices.....	23.74	14.50
15,000 Drill cards for Adjutant General.....	68.44	38.50
20,000 Daily Report blanks, two colors, for Highway Commission.....	60.48	30.00
15,000 Index cards for Bacteriological Laboratory.....	23.74	12.75
25,000 Weight and Measure Report blanks in duplicate for Dairy and Food, printed, perforated, bound.....	124.44	37.50
75,500 Insurance agents' license blanks.....	921.98	235.00
132,000 Postal cards (Bonus: contracted).....	132.90	43.50
250,000 Bonus application blanks (contracted).....	1284.78	197.48

There are many more items of the same sort and they will continue to occur right along. Practically all such savings will duplicate themselves, many of them annually, others biennially. No effort is made here to list all that have actually become a part of the records, but only enough to illustrate the results of the new method of handling the work.

All contracts covering the general run of such work now contain a provision excluding orders where more than 10,000 copies of the job are required. This explains in part why, as recorded elsewhere in this report, so many items come up under section 30 as "emergency" propositions. It is the only business-like way. Those long-run jobs, paid for at what would be reasonable rates only for short runs, have always been looked upon by contractors as the "gravy" in the State printing.

THE "GRAVY"

The question may arise whether, with the "gravy" thus eliminated, higher prices will not have to be paid for the rest of the work, the shorter runs. That was threatened, but it has not materialized. On the average, the short runs are costing the State less than they were when this Board took charge, and still more favorable contracts have been secured for 1923.

It very much affects the average that, whereas the old practice was to allow the printer double pay if the form were printed on both sides, the rule now is that he gets single pay for such a job on the basis of a form the size necessary to print both sides at once. Again, any printer knows that this is no more than the obvious thing to do.

Following are some pertinent quotations from contracts now in force:

Blanks printed two sides to be paid double only where limitations of size of sheet or limitations due to nature of ruling or other circumstances beyond the control of the printer make it impossible to print both sides at once.

Size of form, both sides counted, will determine size in price list. That is, a blank 8½x11 printed two sides will be reckoned at 11x17 size.

Jobs calling for more than 10,000 copies are included hereunder only at the option of the State and the compensation for any such job is to be fixed in the particular instance by the State Printing Board after the job is done. Cost to the printer will be considered. Such jobs may be contracted separately, each as it arises.

The State owns and may secure plates for some blank forms. Runs on these plates may be ordered hereunder, or contracted each separately

outside of this contract. When ordered hereunder, compensation will be fixed in the same manner as for jobs calling for more than 10,000 copies, as stated in paragraph next above.

Jobs with two or more changes on same form will be contracted separately; also jobs requiring bindery work not provided for herein.

In case of small bulletins and circulars, the State reserves the right to consolidate forms. That is, for example, if there are two four-page jobs and one eight-page job, all to go the same number of copies, the whole may be put together and one form of press work paid, or one job may be ordered set twice and made to ride with another that goes but half the number, and so forth.

MOTOR VEHICLE SUPPLIES

Economies that it was found possible to effect under the new law on certain classes of jobs involving long runs may be further illustrated by reference to printing required by the Motor Vehicle Department. The quantities for 1922 and 1921 did not coincide exactly, but the parallel was close in most instances, and the figures given below show what the 1922 quantities would have cost under the 1921 contract, and what the same quantities did actually cost under the 1922 method of handling such work. The amount actually expended for the 1921 supplies was much greater than shown here, for the reason that such large quantities of some of the forms were printed in 1921 that no new supplies of these forms were required for 1922. That is, in some cases, the 1921 printing was ample for a two-year supply. The 1921 purchases were made under the old law by the old Board and the 1922 purchases were made under the new law by the new Board. The comparison on Motor Vehicle supplies follows:

	1921 Prices for 1922 Quantities	1922 Prices Paid
Form B Truck Applications	\$ 80.15	\$ 61.96
Form E Dealers Applications	33.50	20.69
Form F Chauffeurs' Applications	210.50	102.19
Form G Lost Plate	29.00	22.21
Form H3 Non-Resident Applications	22.50	16.56
Form I Removal Certificates	95.65	102.19
Form J Dismantled Car	36.25	29.52
Form K Auto Receipts	\$4,129.50	
Form L Truck Receipts	454.50	
Form M Motorcycle Receipts	46.75	
Form N Trailers Receipts	27.00	
Form P Trans. Receipts	1,804.50	
Form P-2 Add'l Fee Receipts	192.00	6,654.25
Form Q Treasurer's Inquiry	132.75	39.18
Form S Dealer's License	8.50	8.33
Form S2 Claim for Refund	33.75	20.33
Form T Chauffeur's License	109.75	43.00
Form U Auto Certificates	1,390.00	706.55
Form Y3 Correction Slips	52.55	10.93
Form Y4 Correction Sheets	52.30	10.93
Form Y6 Fees Due	52.05	10.93

OTHER SAVINGS

Other savings have been affected by reducing the number of pages required for certain reports and documents, both by getting the matter arranged more compactly and by eliminating useless material. Examples follow:

EDUCATIONAL DIRECTORY	
Cost of work 1920-21 edition	\$2,613.49
Cost of work 1921-22 edition	1,592.52
Saving on work	\$1,020.97
Saving on paper	226.42
Total saving	\$1,247.39

Both editions were done under same contract, one of the old contracts, and paid for at same rates. The saving on paper is computed on basis of January 1, 1922, prices. The actual saving on paper was considerably larger owing to the drop in price. The 1920-21 edition was 10,000 copies, 464 pages; the 1921-22 edition 8,000 copies, 386 pages. The two books contain almost identically the same matter. The 1922-23 edition is being done under a contract let on a page rate basis for this job alone. This book with the same number of pages as the 1921-22 edition will cost about \$300 less than the 1921-22 edition, and \$1,500 less than the 1920-21 edition.

REPORT OF BOARD OF CONTROL	
Cost of work 1918 edition	\$1,487.74
Cost of work 1920 edition	744.71
Saving on work on 1920 edition	\$ 743.03
Saving on paper on 1920 edition	103.30
Total	\$ 846.42

The paper is figured at January, 1922, prices for both books, so that none of the saving represents the drop in paper prices. Many tables appearing in this report for many years have been eliminated as not important enough to justify printing.

CORPORATION LIST	
Cost of work 1920 list	\$ 578.17
Cost of work 1921 list	374.97
Saving on work	\$ 203.20
Saving on paper	21.07
Total	\$ 224.27

Both done under the same contract, let by old Board.

REPORT OF SUPERINTENDENT OF BANKING	
Cost of work 1918	\$1,528.44
Cost of work 1921	498.15
Saving on work	\$1,030.29
Saving on paper	134.00
Total saving	\$1,164.29

The banking report, by law, is now published annually, instead of biennially. The big difference in cost is due to change of form inaugurated by this Board. The statements showing condition of individual banks are printed in consolidated, tabulated form, instead of separately as formerly.

The examples thus given illustrate the point. Such savings, however, cannot, of course, be extended to all reports and documents. It would be idle to hold out any such prospect. In fact, it requires close attention to prevent slipping backward in some instances. Prior to the time this Board took charge much had been accomplished in the way of eliminating useless material, and the resulting benefits are being protected and perpetuated, and will be added to very materially as time goes by. The examples given show this. At the time this report is written only a few of the 1922 reports have passed through for printing.

RATES FOR BOOK WORK

Very material reductions have been brought about in rates paid for composition, press work and binding as applied to book and booklet classes, as appears from the figures given below. On only one item—10 point straight matter composition—is the rate higher, and the amount of this kind of work is negligible when compared with the total amount of composition of all kinds. The heavy run of composition is in the 6 point rule and figure work class, and the reduction here is more than 25 per cent. These figures may not look formidable in themselves, but when applied to the large volume of work handled they mean savings of thousands of dollars. The comparisons follow:

Composition:	1921	1922-23
	Rates	Rates
10 pt. straight matter	\$.75	80 and 85
8 pt. straight matter75	65
6 pt. straight matter75	50 and 55
8 pt. 3 or more justifications	1.10	85 and 95
6 pt. 3 or more justifications	1.10	80 and 85
8 pt. rule and figure work	1.20	90 and 1.15
6 pt. rule and figure work	1.20	80, 90 and 95
Binding rates for various items30	27½
	.20	17½
	.50	37½
	.20	15
	.70	55
	.20	14

The 1922-23 column above shows more than one rate in most instances. This happens because rates obtained on bidding at different dates are set down. In all such instances the lowest rate given is the one last secured. Thus, for example, a rate of 95 cents per

thousand ems for 6 point rule and figure work was the best that could be done in June on a group of work contracted at that time, but by November the lower rates of 90 cents and 80 cents were offered and accepted, applicable to two different groups then contracted. The 80 cent rate is identically the rate paid prior to the war for the same work. It covers quite a bit of work under the contract of which it is a part, but the larger part of this class of composition is at the 90 and 95 cent rates. These rates are to be compared with the rate of \$1.20, being paid when this Board took charge.

TOTALS FOR ONE YEAR

As stated at the beginning of this report, this is the first experience the State has ever had with a system that brings all of its printing matters under a single authority. For this reason, there are available no figures for the preceding year, or years, to afford a basis for comparison as to aggregates. The only comparisons that it is possible to set out have to do with prices and rates paid for given items and kinds of work. Such comparisons are given. The difficulties when it comes to comparison of totals are quickly seen. In the first place, as already pointed out, about \$60,000 of expenditures which normally would have fallen within the preceding year was crowded over into the first year's operations under this Board by reason of the partial paralysis then pervading the State's printing matters. Also, many and considerable are the items and classes of purchases now made through this Board as printing which formerly did not appear in the printing accounts. We have reference here to state house matters. Three such items came to \$21,379.40 within the fiscal year under consideration, as follows:

Supreme Court Reports	\$12,750.97
Feed Stuff Tags	3,825.60
Cigarette Tax Stamps	4,802.83
	<u>\$21,379.40</u>

The Supreme Court Reports appear for the first time under the new arrangement whereby the State is its own publisher of these books, a matter referred to more fully on another page. Formerly the feed stuff tags were bought as supplies and appeared as supplies in the State's expenditures, a fact, too, which applies to many other items of less outstanding importance in point of amount involved. Going back a few years, it was the practice that nearly all printing for departments out of whose own appropriations the expenditure had to come was bought as supplies, or furniture, or something of the sort, possibly without proper authority, but so nevertheless, and

did not appear in the printing account at all. Prior to the time that this Board took charge, progress had been made toward breaking up this practice, but it had not been completely stopped. It is stopped now. All printing expenditures have been brought into the statement we are submitting for the year ending June 30, 1922.

Then come the institutions outside of Des Moines, the University and the Colleges,* whose printing requirements help to swell the total for the year. Never before was any attempt made to take in this field. This University and College printing for the year amounted to \$94,097.26, as follows:

Iowa State College	\$52,358.33
University	37,271.72
State Teachers College	4,188.61
College for the Blind	278.60
	\$94,097.26

Library binding is another considerable item brought under the head of printing for the first time. The greater part of this is covered in the figures above for the University and Colleges, but there is an additional amount of \$2,973.77 not so included, represented by work done for libraries at Des Moines.

Thus, without inquiring into smaller items, the total of expenditures thus mentioned as appearing in the printing account for the first time amount to \$118,450.43. These are not new accounts, but old ones listed now for the first time with printing expenditures. And this takes no account of the \$60,000 or so thrown over into this statement from the prior year.

The State's business runs in cycles of two years each. By the time this Board is called upon to submit its next biennial report, it will be possible to make comparisons as to aggregates.

Following is statement of printing expenditures for the year ending June 30, 1922:

Total printing year ending June 30, 1922.....\$335,925.09†

Special Funds

State University	\$37,271.72
Iowa State College	52,358.33
Iowa State Teachers College	4,188.61
College for the Blind	278.60
Bacteriological Laboratory	597.60
Board of Chiropractic Examiners	418.45

*The institution printing is more fully discussed in a separate chapter beginning on page 35 of this report. None of the comparisons given anywhere in this report as to old and new prices and old and new methods apply to institution printing.

†Includes \$152,020.53 ultimately chargeable to special appropriations; also \$12,750.97 for Supreme Court Reports, \$4,176.14 for Supplement to the Compiled Code and \$1,936.98 for Session Laws, practically all of which is covered back into the treasury by sale of the books through the office of the Secretary of State.

Board of Dental Examiners.....	\$ 189.69	
Board of Engineering Examiners	89.35	
Board of Health:		
Antitoxin	48.80	
Board of Medical Examiners	341.70	
Embalmers	327.18	
Hotel Inspection	1,029.83	
Housing	257.57	
Nurses	284.76	
Optometry Examiners	65.68	
Vital Statistics	6,715.67	
Board of Conservation	34.85	
Board of Podiatry	82.37	
Beef Cattle Producers Association	176.28	
Bureau Venereal Disease Control	1,023.85	
Corn and Small Grain Growers Association ..	631.31	
Dairy Association	113.03	
Fish and Game	5,338.61	
Highway Commission	17,301.94	
Industrial Rehabilitation	90.12	
Library Commission	3,075.38	
Motor Vehicle	18,491.57	
Psychopathic Hospital	989.88	
Vocational Education	58.65	
War Roster Commission	149.05	152,020.53

Total printing chargeable to General Fund.....\$183,904.56*

A difficulty arises in estimating printing requirements for the future from the fact that the General Assembly is an unknown quantity. For years each succeeding session of the assembly, by creating new bureaus, boards, or commissions, or by devising new duties for old ones, has increased state governmental activities. Activities mean printing. A single measure which will be before the 40th G. A., if enacted, may mean an increase of possibly \$20,000 a year in the State's printing bill. These increases, to some extent, can be offset by economies. On the whole, the average annual charge against the general fund for printing during the two-year period beginning July 1, 1923, should not exceed \$130,000, and, conceivably, may be considerably less.

*Includes cost of the paper stock consumed in work paid for within the year, regardless of when such stock was bought and paid for in the first instance. Likewise does not include paper stock which may have been bought and paid for within the year and not yet consumed in work. Includes also \$204.97 paid for advertising for bids under Sec. 12, Ch. 256, 39th G. A. Includes also approximately \$60,000 which normally would have appeared in statement for preceding year, but which was thrown into this statement by reason of the inability of the State to supply its usual requirements during the former period within the then fixed maximum statutory rates. The total is also affected by war prices paid for stock bought earlier and handed down for use within the year covered by these figures.

TOTALS FOR THE BIENNIUM

It is required by paragraph 7, section 7, of the printing law that this Board report the cost of the public printing to each department during the preceding fiscal term. Because of the incomplete and confused character of the records kept before this Board assumed charge on June 1, 1921, it is difficult to supply accurate figures for the biennium. The figures as compiled follow:

Attorney General	\$ 7,091.48
Auditor of State	18,729.76
Bacteriological Laboratory	597.70
Banking Department	4,125.10
Board of Agriculture	11,247.49
Board of Chiropractic Examiners	418.45
Board of Conservation	150.46
Board of Control	1,352.64
Board of Dental Examiners	283.09
Board of Education	2,652.16
Board of Engineering Examiners	334.65
Board of Health	15,090.09
Board of Optometry Examiners	77.60
Board of Parole	910.61
Board of Podiatry Examiners	82.37
Beef Cattle Producers Association	176.28
Bureau of Labor	4,244.83
Bureau of V. D. Control	2,062.19
Clerk Supreme Court	5,072.63
Corn and Small Grain Growers Association	1,158.32
Custodian	85.90
Dairy Association	154.72
Dairy and Food	8,024.58
Educational Board of Examiners	5,930.43
Entomologist	93.77
Executive Council	11,752.31
Fire Marshal	1,960.80
Fish and Game	9,527.45
General Assembly	46,392.11
Geological Survey	1,970.98
Governor	3,868.61
Highway Commission	32,456.51
Historical Department	1,303.43
Horticultural Society	4,391.37
Industrial Commission	3,009.12
Insurance Department	16,009.19
Library Commission	3,916.35
Mine Examiners	11.06
Mine Inspectors	587.12
Motor Vehicle Department	31,104.24
National Guard (Adjutant General)	4,615.66
Oil Inspection	724.41
Pharmacy Commission	1,302.39
Pioneer Law Makers Association	8.71
Printing Board	2,394.88
Railroad Commission	5,048.35
Reporter Supreme Court	13,916.79
Secretary of State	39,167.51
State Library	1,506.25
Superintendent of Public Instruction	20,938.66
Supreme Court	632.64

Treasurer of State	\$ 7,055.01
Veterinary Department	3,293.56
Vocational Education	91.70
Vocational Rehabilitation	90.12
War Roster Commission	288.38
Weather and Crop	6,891.24

Note: Figures for one year for the educational institutions and the Historical Society are given elsewhere. The Board of Health figures include all Board of Health activities. Separate figures are given elsewhere in this report for the second year for each division of the Board's work but this could not be done as to the first year of the biennium from the records then kept.

A detailed statement of printing for each department appears in the Biennial Expense Report.

LEGISLATIVE PRINTING

The General Assembly does its liberal share toward making difficult the problem of keeping down printing expenditures. The following figures showing total printing expenditures incurred for each of several recent sessions are interesting:

34th G. A.	\$19,043.10
35th G. A.	25,724.30
36th G. A.	19,340.41
37th G. A.	26,514.04
38th G. A.	19,553.95
39th G. A.	46,392.11

The huge jump from \$19,553.95 for the Thirty-eighth session to \$46,392.11 for the Thirty-ninth session occurred prior to the beginning of the new administration of printing matters, and was due to several causes. Up to and including the Thirty-seventh session, pre-war prices as fixed by statute prevailed. The Thirty-eighth session fell just as the plan of competitive bids was being inaugurated to supersede the old printer-binder system. Competition was keen and possibly the State profited by the desire of bidders to demonstrate that the change was a good one. Resultant low charges kept the total down. On the other hand, when the Thirty-ninth session convened the condition of general confusion and dislocation referred to elsewhere in this report was at its peak. Figuratively speaking, the State was caught over a barrel, and suffered. Also, the State, now for the first time, was exposed in its printing matters to the full force of what the war had done to prices in general. The statutory maximum had to be removed to get the legislative work done at all. Possibly, too, the Thirty-ninth session used a bit more printing than any of its recent predecessors.

It is the expectation of this Board that the total for the Fortieth session may be kept well below that for the Thirty-ninth. Contracts let for the Journals are at a reduced rate per page for composition, and the specifications call for the elimination of three-fourths of the

white space. Thus, in addition to the saving per page, there will be a saving in the number of pages. The Journals are put up in what to this Board seems a needlessly extended and verbose form and it is hoped that, with the co-operation and approval of the Assembly, reforms along this line can be inaugurated and still further material savings effected. As they have appeared in recent years, the Journals represent about the final word in printing waste. The need appears to be merely that some one in authority take hold of the matter and give it the overhauling it requires to get it on an economical basis. The god of precedent may make it difficult to accomplish all that should be accomplished along this line.

The bill index is going to cost more for the Fortieth session than it did for the Thirty-ninth for the reason that, whereas heretofore four or five editions have been issued during the session, it is now required that an edition be gotten out every week, commencing with the close of the third week. (Sec. 60, Ch. 286, 39.) This means an increase of several thousand dollars on this item.

MAXIMUM RATES

Paragraph 5, Section 11, of the printing law, provides for a schedule of maximum rates or prices so far as the same can be made applicable. There is limited value in this provision. Maximum rates are an impracticable thing except as to composition, press work and binding in the case of book work. A maximum schedule can be arranged and has been applied to such work, but for the general run of printing the plan does not work. The variations are too numerous. Anyway, up to this time there has been competition of such lively sort in the bidding for substantially all classes and items that the purpose that prescribed maximum rates would serve is thus accomplished with a greater degree of certainty. That purpose is to get the work done at the lowest cost consistent with good service and quality. Also, even though such power might be supposed to adhere to the Board as a matter of course, the law at section 20 specifically provides for the rejection of all bids on any appearance of a combination among bidders.

BIDDERS AND CONTRACTS

The number of bids received from time to time as proposals are called for has varied from a single proposal to as many as twenty. The list now on file contains the names of nearly one hundred individuals and firms who have indicated their desire to be advised when work is to be let. Some of these are interested in but a limited var-

ety of work, while others with larger plants and more varied equipment are prepared to consider a wider range of contracts.

By far the larger number of bidders, both potential and actual, are located outside of the city of Des Moines. In fact, comparatively few Des Moines firms in the general printing business can be relied upon to submit bids on everything that comes up for which they are equipped. The range of bids is too low for some. A number of other Des Moines concerns now and then take a "flyer" by bidding on isolated jobs of certain kinds that they at the moment happen to stand in need of to keep their equipment busy. From this class of bidders the State at times gets some very favorable proposals, and this constitutes one more reason to be added to others mentioned elsewhere in this report why it makes for economy to split the work up to the greatest extent practicable.

During the period under consideration contracts have been let to firms located at the following points outside of Des Moines: Waterloo, Cedar Falls, Cedar Rapids, Vinton, Iowa City, Fort Dodge, Ames, Marshalltown, Tripoli, Mason City, Shenandoah, Newton, Grinnell and Dubuque. In a general way, the concerns outside of Des Moines offer the strongest competition when it comes to isolated jobs, while the Des Moines firms do their close bidding for groups and classes of work. This works well with regard to state house requirements, as a little experience has shown that it is difficult to handle a running contract for miscellaneous jobs at a distance. The additional cost of such a plan comes to about fifteen per cent. This expense is represented by freight, cartage, express, postage, telephone, telegraph and travel. For corresponding needs at Iowa City and Ames, the situation is the same, with the fifteen per cent differential operating in favor of the local bidders at those points, with this modification, that work from these points can be handled at Des Moines at less of extra expense than work from Des Moines can be handled outside, because when work comes to Des Moines it is brought within the range of easy supervision by this Board, while the reverse is true when the work is headed away from Des Moines. The policy of the Board is to treat all alike, wherever located.

There is quite a sprinkling of lithographed jobs. Most of these go to the two Des Moines firms operating in that line. For the most part they are reprint jobs, and the Des Moines concerns own the engravings resulting from earlier orders. They have that advantage. Generally, it is not possible to get other concerns to bid against them, but now and then a firm outside of the state takes a job. A

Chicago concern is lithographing the cigarette tax stamps, for example. This is quite an item, with the requirements for a year approaching 60,000,000 stamps.

During the year ending June 30, 1922, the sum of \$189,026.65 was paid to Des Moines concerns for work and \$86,474.02 was paid to concerns outside of Des Moines. During the current year the proportion going to Des Moines concerns may be larger because of the legislative work, which must be done in Des Moines.

THE EMERGENCY PROBLEM

Section 30 of the printing law permits the purchase, in case of emergency, of work or material to the extent of \$200 without observing the formalities with regard to advertising, formal proposal, certified check, bond, and so forth, but only after taking bids. From the date of the organization of this Board to July 1, 1922, several hundred items arose for consideration and were disposed of under this section. Many of these items were paper stock. Perhaps fully as many, or more, were work. A good many of such work items might have been covered into general or blanket contracts, but never so to the advantage of the State. In fact, one of the most valuable features of the present printing law, compared with the statute it superseded, is that it is less rigid. The old law attempted to classify the work into a limited number of divisions. Intelligent and efficient action under such an arrangement was impossible. It is an outstanding feature of the policy of this Board that the greatest possible freedom be retained to the State to make separate purchases of individual jobs. That is, when a contract is let for a class of work, limits and reservations are set up and the State is protected against the absurdities which formerly obtained, such, for example, as paying the same rate per thousand for a blank whether the order was for 2,000 or 200,000. The present law allows the Board full latitude in classifying and grouping and dividing and subdividing the work, and this is one of the most valuable features of the statute.

But there is still room for improvement. This section 30 of the law purports to take care of emergencies. It does not do that. It affords machinery that makes action possible in many cases without unreasonable delay. To that extent it constitutes protection against and forestalls emergency. Without the machinery thus provided, the Board, to some extent, would be obliged to throw things together in a hodge-podge fashion, as was formerly necessary, in order to avoid a complete breakdown in many instances. To make advance provision in blanket contracts for work the character and extent of

which cannot be foreseen is to go it blind, and going it blind, produces the results illustrated by comparisons of old and new prices shown elsewhere in this report. Therefore, while general contracts covering specified classes of work for a given time are suitable for work the extent and character of which can be foreseen, something else is required for the rest of the work. Section 30 is the answer as far as it goes, but it does not go far enough. The \$200 limit should be raised to \$500. As the law now stands, a real emergency presents itself when something costing in excess of \$200, and which does not properly nor advantageously fall within outstanding general contracts, must be had without the delay incident to three weeks for advertising and a week or so more for other formalities. Confronted by such an emergency, the Board may take one of three courses:

1. Disregard the \$200 limit.
2. Place the order under some outstanding contract.
3. Split the purchase into two or more orders, buying part at a time.

The first alternative must be left out of the reckoning when it is stated. Either of the other two means waste, means paying more than need be paid were it not for the limit under consideration. Even with this limit raised to \$500, there possibly will be instances of like embarrassment, but they will be so greatly reduced in number and importance as to give no real concern.

The items arising under this section 30 were as numerous as indicated notwithstanding the Board had nine formal lettings under advertisement within the year, and at all times had several outstanding contracts to take care of work that could properly and economically be handled under such contracts.

TERM OF CONTRACT

Section 22 provides that contracts shall be for a period of one year. The Board is unable to see any advantage in limiting all contracts to so short a period of time. In some instances it probably would save work and expense in the administration of the business were the way open to make contracts for a longer period. It is felt to be quite certain that sometimes this would mean a greater number of bidders and lower prices. A three-year contract, for example, is more attractive than a one-year contract, and the bidder may bid accordingly. On the other hand, in such cases it is not apparent that there would be any attendant disadvantages to be reckoned with as a set-off. Some contracts doubtless should be on an annual basis. The thought is that the Board well might be left free to judge within a three-year limit.

ADVERTISING AND OTHER FORMALITIES

The requirement that bids must be advertised for in seven newspapers in seven different cities of the state for three consecutive weeks tends to make it impossible that snap judgment be taken, were those in authority ever tempted to try anything of the sort. Otherwise this provision of the law has less value. The advertising does not result in many inquiries leading to bids. The list of possible bidders is quite definite at all times and is always on file in the office of the Board. It also happens, through the provision that material as well as work is involved, that at times we are advertising at points in Iowa for paper stock which cannot be bought nearer than Massachusetts, save through some agent who has not failed to keep in touch with the prospect on his own motion, and who never sees or hears of the advertisement. Nevertheless, the Board believes that this provision of the law should stand. In a way, it is the backbone of the formalities, and the formalities are a record guarantee of good faith and fair treatment on all sides. During the year ending June 30, 1922, the amount paid out for advertising was \$240.07. In the opinion of the Board this money is well spent.

The provision requiring the bidder to deposit a certified check with his bid doubtless discourages some possible bidders who are not accustomed to such requirements in the ordinary course of their business dealings. It is regarded as a bother; it is something many prospective bidders are not familiar with. Again, however, the Board gives it endorsement. The practice is one having the sanction of long usage in connection with all public work. Rarely does a check deposited with bid become subject to forfeiture. This Board has thus far had but a single instance of the kind. A bidder made a blunder in compiling his figures and preferred to sacrifice his \$60 check to going on with the contract.

What is said of the certified check may also be said of the bond for faithful performance of contract. Some possible bidders look upon it as another bit of red tape, and they do not like it. It is likely that the State would run on for many years before having occasion to proceed upon any such bond. Bonds of this sort, however, are preventive more than curative, and the provision is a good one. Some expense arises from the requirement, and this expense, of course, is shifted to the State. When a bidder sees that he is confronted with an outlay of \$25 for a bond in case he gets the work, he must add that much to his bid, and does.

PAPER STOCK

The law gives the Printing Board the option to buy paper stock separately or to secure it through the printer. Because of much confusion that had formerly arisen in connection with the policy of separate paper purchases, the Board hesitated to continue such practice, but after careful consideration reached the conclusion that with careful and intelligent management there need be no difficulty of the sort that had gone before, and that, on the other hand, a considerable saving could be effected. Consequently, it was decided to continue the policy of the State buying its own paper. Every favorable expectation in this connection has been more than met. Expenditures for paper during the year ending June 30, 1922, amounted approximately to \$60,000. It is well within the fact to say that, on an average, this paper was purchased at 15 per cent less than it would have sold for to the printers who did the work whereby it was consumed. The reason for this is that the State buys in quantity, pays its bills promptly and may sometimes have an additional advantage arising from the fact that it is not a commercial concern with competitors to complain of preferential treatment at the hands of paper houses to their disadvantage. The State also is able to anticipate needs and take advantage of market conditions. The largest element in the situation is the quantity buying. To the 15 per cent thus saved must be added the 20 per cent that the printer normally adds to his cost when he buys the stock and carries the account and turns the stock over for his customer. Thus, the \$60,000 paid for paper during the year mentioned would have been swollen to \$82,800 under a policy of securing paper stock through the printer. As it is not practicable to keep on hand or secure promptly in the market some of the many kinds of stock required for the work, authority is given the printer in instances to supply the stock. The rates the State pays in such instances is the convincing proof of the economy of the State buying its own paper to the largest extent practicable.

Against the saving of \$22,800 a year on the above basis must be charged the expense of handling the stock and keeping books on it. This is quite a task, and requires records and computations technical and intricate compared with ordinary book accounts, but, in the aggregate, this entails an expense of not to exceed \$4,500 to \$5,000 a year. It is estimated that not more than that much of the general expense of the Printing Board could be cut off by changing to a policy of securing paper stock through the printer. The Board is

satisfied that the practice followed in this matter is eminently desirable and successful.

There is also the advantage of having the paper available when needed. This advantage stands out in striking fashion when contrasted with the disadvantage of not having the paper when needed. Experience brings both sides of the shield to view from time to time.

The subject of paper stock is not complete without reference to some details. Instead of buying under brand names, the Board now has No. 1 bond made to specifications, with special watermark consisting of the state seal. The quality practically is as good, and certainly meets all requirements. The cost is about 25 per cent less, and, on the quantity used, the saving on this item will be about \$1,000 annually.

Another economy occurs in connection with the book paper. Heretofore the State has used 38x50-100. This Board has substituted 36x48-90, with a saving of ten pounds to the ream. The reduction in size has little effect except to lessen the waste in the trim. The finished book may trim a trifle smaller, but its value is in no way lessened. This change means a saving of from \$1,000 to \$1,200 a year.

Practically all paper bought by this Board has been secured at great reductions from prices that were being paid for the same grades at the time this Board took charge. This comes about in part by changes in the market and in part by changes in method of making purchases. The formalities in this connection have proved their value.

SUPREME COURT REPORTS

For decades prior to 1921, the Iowa Reports, so-called, containing the opinions handed down by the Supreme Court, were "farmed out" to private publishers. The publisher would be given the publishing right in consideration of an agreement on his part to place the books on the market at a stipulated price and to supply the State gratis with a given number of copies of each volume for library, official, public and exchange purposes. This plan may have worked satisfactorily in earlier days. The truth as to that has not been inquired into. But for years prior to 1921 there was much dissatisfaction because of delay in issuing the books. This dissatisfaction took shape in 1915 in the form of an act of the General Assembly authorizing the Judges of the Supreme Court, at their discretion, to declare an end to the old arrangement and make the State its

own publisher. This threat was sufficient to gain from the publishers copious promises to do better, but instead of improvement being realized, matters went from bad to worse until, in 1921, soon after the organization of the present Printing Board, the Judges of the Supreme Court took action under the act of 1915 and called upon this Board to take over the printing and binding of the Iowa Reports.

Accordingly, bids were advertised for and a contract was let for the work, beginning with Volume 190, the first copy for which was delivered to the printer November 1, 1921. Volumes 190, 191 and 192 were gotten out with great speed. Volume 193 was delayed slightly, but copies of it have been delivered at this writing, November 15, 1922. This volume (193), barring less than a dozen opinions, contains all of the finally-released opinions of the court up to September, 1922. Had Volume 193 been out a few weeks earlier, the publication of the reports would have been absolutely up-to-date, and, practically, that is the case as matters stand. Against this is the record that during the time of handling the publication through private contractors the reports were fully two years behind at all times, with not infrequent periods of an even worse condition.

But this improvement in bringing the reports up to date is not all. At the time the State became its own publisher and the work was turned over to this Board, residents of Iowa were paying \$4.25 a volume for the books, with a much higher price to nonresidents, the exact figure not of record, but said to have run as high as \$8 a volume, and the arrangement whereby the State formerly got its 300 copies gratis had broken down, and the State was actually paying the publishers for these 300 copies at the rate of \$4 a copy, or a total of \$1,200 for the 300 copies of each volume. Now, under the new arrangement, residents of the state pay \$3.50 and nonresidents \$4.00, and sales out of the total edition of 1,500 copies promise to be sufficient at these prices to reimburse the State for the total outlay for printing and binding and plating, thus insuring to the State itself a saving of the \$1,200 per volume formerly paid the publisher for its quota of 300 copies. Also, the State gets without extra expense the electrotype plates from which a further edition of any volume may be printed at any future time that the demand may warrant, without the need to pay for resetting the type, reading the proof anew, and so forth. Thus, the attorneys of the State who buy the books are enjoying a saving of 75 cents per book, or, on a sale of 1,200 copies, a total of \$900 per volume issued. This added

to the State's saving makes a total of \$2,100 per volume, or, with an average of two and a half volumes per year, \$5,250 annually. The actual gain will prove to be more as time goes by, for the reason that a part of the sales will be to nonresidents at the higher price.

A third advantage enjoyed under the new plan is found in the greatly improved quality. Chief Justice Stevens of the Supreme Court says: "The Iowa Reports, under the new arrangement, are very greatly improved in binding as well as in the character of the printing. They are, in my judgment, the best books that have been published since I became a member of the court." With regard to the gain in time, Justice Stevens says: "It must be a revelation to the bar to find the published official reports so nearly up with the work of the court."

Another official connected with the court says: "It is almost impossible to find a decently bound Iowa Report among the volumes gotten out by private publishers." Many of the buyers of the books may not at once notice the difference between the present and former binding, but it is there and will be appreciated in time.

The Printing Board does not take to itself any credit for the change of plan. The General Assembly and the Judges of the Supreme Court are entitled to all credit in that connection. The plan having been changed and the work placed in the hands of this Board, the matter received prompt and careful attention, with the results indicated.

LIBRARY BINDING

Section 8 of the printing law provides that "the term 'printing' as used in this chapter shall include 'binding,'" etc. The Printing Board interpreted this to mean library binding, as well as bindery work incidental to printing proper.

In libraries located at Des Moines, Iowa City, Ames and Cedar Falls, the State and its institutions own upward of one million volumes, and the number is constantly on the increase through the acquisition of new books and the reduction of periodicals to bound form. Claims paid through this Board for library binding during the fiscal year under consideration amounted to \$8,392.72, distributed as follows:

State Law Library	\$ 610.05
State Library	580.76
State Library (Medical Department)	52.05
Teachers College	876.84
Library Commission	1,750.91
University	2,236.05
Iowa State College	2,306.06

The normal amount required annually for this work likely will be larger than thus indicated, for the reason that, with some of the libraries, less than the usual amount of work was done during the year covered by these figures, as the result of unavoidable delay in the summer of 1921 on the part of the Board in getting the situation in hand and letting contracts and getting the work started.

Library binding is a specialty among binders, and, so far as this Board is advised, there was not in Iowa a single plant devoted to the work until a Chicago concern put in a small branch in Des Moines in the summer of 1921. This Des Moines plant can handle only a small part of the work at present, but there is promise that its facilities will be enlarged soon. The greater part of the work goes to concerns in Chicago and St. Paul. When it came to awarding new annual contracts recently, there was but a single bid for the State Library work, and that from a concern out of the State. Of course, local binders not specializing in this line can handle small orders, but the general run of the work must go to plants especially equipped for and devoted to this kind of work if good results and economy are to be considered.

Much of this binding is periodicals, although there is also a good deal of rebinding of books. Volumes of fiction come from the publisher in the flimsiest kind of binding and soon need attention if they are handled much. Books used by the Library Commission for traveling library purposes are quickly in need of repairs or rebinding.

HISTORICAL SOCIETY

Shortly after the organization of this Board, and at a time when a committee of the Board was making a survey of state printing matters outside of Des Moines, a question arose as to whether the State Historical Society came within the provisions of the printing law. Dr. Shambaugh, superintendent and editor of the society, stated the position of the Board of Curators to be that they would gladly abide by any decision reached in the matter, but at the same time felt confident that the society's printing could not legally be considered to be covered by the law. The essence of this view was that the Historical Society is a private corporation and that when it is given a legislative appropriation it has the same complete powers over the proceeds of such appropriation as it has over funds coming into its hands from any other source, or as any private corporation would have over its own funds.

After correspondence and further conference, a nominal working

arrangement was made to tide over until the question could be referred back to the General Assembly. Figures appearing in the Biennial Expense Report give \$25,215.12 as the amount of the Society's printing expenditures for the biennium ending June 30, 1922. None of this amount is included in any totals given in this report.

MULTIGRAPH PLANT

The small multigraph and duplicating plant operated by the Printing Board requires one employe whose services are given to the work practically all of the time. The run of work that can be handled to advantage in this way is just about equal to the capacity of the plant. During the year July 1, 1921, to June 30, 1922, the output of the plant, counting work only, amounted to \$2,435.55, computed in most cases on the basis of what the work would have cost sent out, and the remainder on a time basis. The labor cost for the year was \$1,200. The State has approximately \$1,500 invested in the plant. Depreciation, repairs and supplies would come to about \$300 a year. Thus, for an outlay of \$1,500 a year, the State gets work that would cost \$2,400 if sent out. This money saving of itself justifies the maintenance of the plant, but a consideration of at least equal importance is the convenience and saving in time in many instances. Frequently, the prompt service rendered in this way is of the utmost importance to the department requiring the work.

Except for the small room occupied, the overhead expense is no more than it would be for the same volume of business handled through the printing offices.

PRINTING PLANTS AT INSTITUTIONS

The governing board of any state institution having a printing plant is permitted by section 9 of the printing law to employ such plant to do its printing outside of the jurisdiction of this Board. There is a very considerable plant at the Men's Reformatory at Anamosa. The Board of Control employs this plant for substantially all of the printing required for the institutions under its control. The use of uniform blanks and accounting methods at all of the institutions gives rise to a situation that makes it possible to print up supplies in quantity in advance and hold them in stock until needed. The Anamosa plant fits into this situation very nicely.

This plant at Anamosa has been employed by the Printing Board to handle a limited amount of work. The results obtained have been fairly satisfactory, but it is not apparent that it would work well to try to take care of too large a volume of the work in this

way. Many skilled hands—many different hands skilled in many different ways—are required to execute the widely varied run of printing required by the State and its educational institutions. The Printing Board hopes to continue to employ the Anamosa plant to the largest extent practicable. All blanket contracts are drawn with a provision reserving the right to divert any of the work to this plant. For work done at the Anamosa plant, payment is made on the basis of rates set up in current contracts with commercial printers.

There is also a small plant at the Iowa School for the Deaf at Council Bluffs which takes care of the printing requirements of that institution.

AUDIT OF CLAIMS

Claimants are required to file claims in quadruplicate on form provided by the Printing Board, with the original verified under oath. It also is required that no claim shall cover work or material chargeable to more than one department or fund. This adds to the number of separate claims to be handled, but in the end simplifies the accounts both in this office and in the Auditor's office. During the year ending June 30, 1922, a total of 3,544 claims were filed and approved and passed to the Board of Audit. Warrants covering same were delivered by the Auditor to this office and, after proper entry, forwarded to the claimants, each attached to a copy of the claim covered by the warrant. Thus, all payments are for specified items and no open accounts are kept, except a few as to paper stock, explained elsewhere. On large jobs, partial payments are advanced as the work progresses under practice that requires substantially that the contractor have invested in the work at least twice the amount of the advance. Section 11 of the printing law provides for this. The checking and approval of claims is a large task, involving as it does a vast amount of detail, the examination of samples of the work and the adjustment of occasional disputes with claimants arising out of questions of classifications and interpretation of contracts. All claims are checked in detail by the Superintendent of Printing and by the State Accountant before being submitted to the Board for approval. This check by the State Accountant as the claims go into the record appears to be about the only practicable way in which that official could check this office as required by law, as the task would become an almost impossible one, so far as accomplishing it in any reasonable length of time is concerned, if the work were deferred to the end of the year.

In cases where work is done under standing contracts for classes, the claimant must, in addition to itemizing his claim for work, itemize also as to paper stock consumed. This also is checked and proper credit entered against the charge set down against the contractor when the paper was issued. In such cases staple items of paper are issued and charged in bulk.

ACCOUNTS AND RECORDS

When this Board took charge of the printing on June 1, 1921, it was necessary to devise a system of accounts and records to meet the requirements of the business in hand. Such system as had formerly been set up was found to be incomplete, inadequate and more or less of a makeshift. A great deal of extra work and research was necessary to get out for the State's Biennial Expense Report the printing statements covering the first year of the biennium ending June 30, last, because of the lack of system, permanency and thoroughness in the records that had been kept.

It seemed to this Board that both the law and good business practice required complete and permanent records.

A book record is kept of every job of printing that is ordered. This record includes all data pertaining to the job: for what department, name or character of the job, size, quantity, description of stock, source of stock, cost of work, cost of material where separate, total cost, claim number, date of approval of claim, name of contractor.

Another book carries accounts with contractors covering paper stock. These are open accounts. They are confined to contractors handling groups or classes or series of jobs under general annual contracts. To these contractors, stock is issued and charged in bulk, and credited item by item as returned to the State in the form of made-up printed matter. Annual settlements with contractors complete this feature of the accounts.

What amounts to a day-to-day inventory of all paper stock on hand is kept in still another book. This record shows the source of all stock, its cost, disposition, and balance on hand both in quantity and in money value. Except as press of other work or the solution of some confused or obscure point bearing on some item may at times delay entries, this record tells at all times just what paper stock is on hand and its value.

Duplicates of all orders issued are on file in the office of the Printing Board. Where orders are issued by assistants at institutions outside of Des Moines, the duplicates are immediately forwarded.

There is also a system for invoicing special fund departments for paper stock used for their printing. This is done through the Auditor's office in a way to leave a complete record in this office, in the Auditor's office and in the department charged. The Auditor's office attends to the collection to get the money back into the general fund. The aggregate amount involved is quite large. Formerly this matter did not have close attention, and it appears likely that the loss to the general fund was considerable. It amounted substantially to an unauthorized draft on the treasury.

SPECIAL REPORT

The Printing Board will file in due time as required by Section 80 of the printing law a special report conveying its recommendations upon the fair maximum number of pages and copies of each of the several departmental reports.

Not all of the departments and boards listed in section 63 have heretofore had their reports printed, if, indeed, there are not some among them that file no reports at all. In a few instances the departments named are not even in existence, but may possibly be in contemplation.

There is confusion also as to the reporting period of some departments. Section 63 fixes June 30th of the even-numbered year as the end of the reporting period for departments making biennial reports. In some instances the reporting period long has been otherwise by reason of statutory provision or the practice of the department of making its year or biennium coincide with the commercial year in the same line. Also, while section 65 requires that reports be filed not later than September 1, some departments are able to make a showing that this is a physical impossibility. The whole subject seems to need overhauling, to the end that it may be made clear (1) what reports are required, (2) whether and which ones to be printed, (3) the bounds of the reporting period, and (4) when each report shall be filed. There is need for an exhaustive study of the whole subject, and the ramifications are so numerous and the interests affected, so varied that a legislative committee might profitably put in considerable time working out a solution.

IOWA DOCUMENTS

The so-called Iowa Documents present a special problem. As the law provides, an extra edition of 1,000 copies is printed from the forms for all official reports, these additional 1,000 copies to be bound in a collected edition of the requisite number of volumes. At one time the set consisted of seven volumes. The last set issued,

that for 1919, consists of five volumes. The 1921 set was found by the Board upon its organization to be in a state of almost hopeless confusion. In the case of earlier sets, the printing had all been done in a single office and keeping the material together was a comparatively simple matter. It was different with the 1921 set. The State's printing affairs were in a sad state, chiefly because of the difficulties arising from change of methods, but also in no inconsiderable part to the inability to get the work done in the usual places and in the usual quantities at the usual times within the maximum rates fixed by the statutes as they then stood. And all still further complicated by war and post-war conditions. In this situation the printing of the various official reports was in some cases delayed until the summer and fall of 1921 and in other cases done at widely scattered points and some of it by concerns not wholly competent. Thus the material for the Document edition became scattered and knocked about and part of it perhaps hopelessly lost. This Board, upon taking charge of the work, gave immediate attention to these difficulties and is still wrestling with them. Ultimately it is expected that this edition of Documents will be gotten together in some shape, although it is plain now that nothing like 1,000 complete sets will ever be realized.

The valuable point to all this is that the usefulness of the Document edition is brought into question. Although the 1921 set is so late, there have been but two inquiries concerning it. One of these was from a library and the other from a candidate for the legislature. It is realized, of course, that the historical value is the chief factor, and that popular interest or demand could hardly be expected, and the historical value perhaps is not to be underestimated, but the experience recited clearly indicates that the edition should be cut from 1,000 to half that number, or even less. To lop off half of the 1,000 copies would mean a saving of about \$7,500 for each biennial period. In many instances the legislature has left it to the Printing Board to fix the number of copies of any publication, but in this instance the law (Sec. 69, Ch. 286, 39th G. A.) says "not less than 1,000 copies." This should be amended to read "not more than 500 copies."

DISTRIBUTION OF DOCUMENTS

Section 46 of the printing law provides that the Superintendent of Printing shall have the custody of documents, reports and other printed matter, and make and supervise the distribution of same. Under this section, the Superintendent of Printing has immediate charge with regard to reports of state officers and other publications

put out at the seat of government. With regard to publications put out at the University and the Colleges, supervision is exercised through the institution organizations. Efficiency and economy are best served in this way. Any attempt to take direct charge of this distribution work in connection with institution publications would involve the building up of an expensive organization that would be but a replica of that now handling the details. The institutions are able to handle student help in this connection and accomplish much for slight outlay of money.

Additional sections of the law fix pretty definitely the disposition to be made of copies of regular reports and publications. Beyond this fixed distribution, the demand seems to be slight. The public does not evince a very lively interest. A few requests for these documents are received from day to day, mostly from teachers and school debating teams, but the general public apparently takes little interest. This does not apply to the Agricultural Year Book, proceedings of the Horticultural Society and kindred publications that go beyond the scope of mere official transactions and statistics. Publications of this sort are in real demand and appear to be genuinely valued by the public.

OLD DOCUMENTS CONDEMNED

During the year ending June 30, 1922, action was taken from time to time under Section 45 of the printing law condemning old documents. Sales amounted to \$384.64, and this amount was transmitted to the Treasurer of State as required by law.

UNIVERSITY AND COLLEGE PRINTING

The most marked innovation introduced with the passage of the new printing law and the organization of the new State Printing Board occurred in connection with the printing requirements of the State University, and the colleges at Ames and Cedar Falls. Formerly, these institutions handled their own printing matters, each in its own way, bought its printing as it buys other supplies, without assistance or interference from any authority outside of its own organization, but, of course, under the same general supervision of the State Board of Education that applies to all matters pertaining to these institutions.

At a meeting of the Printing Board soon after its organization a committee consisting of Mr. Ramsay, Mr. Orchard, Mr. Gillespie and the Superintendent of Printing made a survey of the printing situation at Iowa City, Ames and Cedar Falls. At a subsequent meeting of the Board, this committee reported as follows:

At each of these institutions, the committee was afforded every facility and assistance in gaining a knowledge of the subject in hand. The heads of the institutions and their assistants took pains to see that all information bearing on the subject was laid before the committee, and evinced a complete willingness, even an anxiety, to co-operate in every way to get the greatest possible benefit from the printing law.

The committee found the fact to be at each of the institutions that printing matters are having the closest attention, with gratifying results both as to quality of work and as to prices paid.

The committee was impressed that to a considerable extent the printing required by these institutions is an integral part of the work that they are carrying on, and that any measures of censorship must be exercised with the greatest care to the end that the legitimate and proper work of the institutions be not interfered with. Only by careful study and observation, extending over a period of time, will it be possible to determine where, if at all, the volume of printing may be reduced. The recommendation of the committee is that such study and observation be made the special care and duty of the Board and of the Superintendent of Printing as the work proceeds.

The view thus expressed that their printing is an integral part of the work of these institutions is still held; experience only emphasizes it. This has to do, of course, with the printed matter laid down, after it is produced, and not with the procedure of obtaining it. The problem of the procedure represents, for the most part, the duty assigned by the legislature, in this connection, to the Printing

Board. There is also the grant of jurisdiction over the question of what may be printed and the quantity.

This Board did not enter lightly upon its duties in connection with these great institutions. Perhaps nothing about the entire organization of one of these institutions, or connected with its functions, is more pervasive than its printing. Without printing such an establishment could function about as long as a fish could live out of water. Any move to withdraw any portion of an element so essential to the very life of the institution calls for the most careful sort of consideration, as well as a sympathetic understanding of the sensitive, almost delicate, nature of the organization. These terms are not applied to individuals, but to the machine as a whole. It is a vast and intricate affair, in the case of either Iowa City or Ames, kept in motion by a wisely considered and well balanced plan. By wading into the printing situation in a spirit of recklessness or hostility, or through lack of appreciation of the situation, the Printing Board might have promptly curtailed printing expenditures to a larger extent; and at the same time played havoc with the machine in short order. We have been careful not to do that, possibly over-careful. It is not believed, however, that the legislative intent contemplated anything but the most careful and sympathetic co-operation with these institutions. The State has a vast sum invested and appropriates generously to make certain, and so far as possible available to the people as a whole, the benefits of the immense work that is being carried on. The larger purpose of the State is thus glimpsed. The Printing Board has a proper function, a proper place, in the organization, and can, and is, we think, performing a valuable service. The Board is trying to perform its mission and still keep in mind that it is important that the perspective be not warped and the larger purpose interfered with by a magnified conception of that which is only a part. Within the limits set by this spirit, the Printing Board has an ample field of usefulness, corresponding to the field it occupies with relation to state printing requirements in general. And it is in this spirit, too, that results are obtained in keeping down the volume of printing as much as may be, as well as in seeing to it that full value is received for every dollar spent.

In the case of bulletin printing for experiment stations and extension work, this line of reasoning is ever to the fore, namely, that large sums are invested in investigations, experiments and research for the benefit of Iowa's industries and the health and civic welfare of the people; that this is all useless unless the results are carried

to the public, and that printing is the most economical way yet devised to do this carrying. Thus, in the main, it is a large question of policy. The legislature is the author of the policy.

A survey of printing at each of the three institutions, treated separately, follows:

IOWA STATE COLLEGE

The printing for Iowa State College which is subject to the state law creating the State Printing Board may be divided into the following classes:

1. *General Printing:* This includes mainly printing used in the conduct of the business of the College and its departments and experiment stations, such as letterheads, envelopes, office forms, registration and classification blanks, fee cards, report cards and blanks, and such other items as usually enter into the administration of the affairs of an educational institution.

This printing is ordered as needed and is paid for out of funds allotted to each department of the College in the making of the annual budget by the budget committee and the finance committee of the State Board of Education.

2. *Publicity Printing:* This comprises booklets, circular letters, folders, mailing cards and similar items used to acquaint young men and women in Iowa with the courses of study offered by the College and to interest them in the opportunities that these courses open to them.

This printing is paid for out of a special fund set aside for the purpose when the annual budget is arranged. This printing is planned by the Agricultural Journalism department, with the aid of a special committee, and in a general way is approved by the administrative officers before it is ordered. The appropriation for this kind of printing is kept to the minimum limit. The College does not assume the position of advertising for students, but merely of giving out information about the work offered.

3. *Catalog:* This item includes the general college catalog in complete and sectional form and a smaller publication dealing with the courses offered and rules governing admission of students.

This printing is paid for out of a special budget fund, set aside each year by the finance committee. Every effort has been made in recent years to keep the cost of catalogs at a minimum, both by "boiling down" the matter contained and limiting the edition and by setting in smaller type, printing on lighter paper, etc.

4. *Soil Survey Reports:* This item covers the county reports of the Iowa soil survey and the experimental tests of soils in connection with the survey. The editions are necessarily large, because it is not feasible to reprint, from time to time, due to the heavy expense of engraving the soil survey map in colors which is a part of each report.

These reports are intended to give farmers in each county an accurate inventory of the kinds of soil on every farm, and the

state of its fertility, with suggestions how each particular type of soil may be handled best to produce maximum crops at minimum costs.

These reports are paid for out of a soil survey item in the biennial appropriation to the agricultural experiment station. There is no specific mention of printing in the appropriation bill, but the expenditure for printing is made under the general authority to use moneys for the survey. However, annually, the finance committee of the Board of Education and the budget committee of the College determine how much shall be expended for the various purposes of the soil survey, within the total appropriation. The amount available for printing varies with the amount available from the state treasury under the experiment station appropriations.

5. *Agricultural Experiment Station:* This item covers the printing of the circulars, bulletins and leaflets issued by the experiment station for the instruction and guidance of farmers; they deal with the practical problems of agriculture and rural life and are based in large part on investigation and experiment. One series of these publications deals with agricultural research, issued in limited numbers.

These publications are paid for out of the available experiment station appropriation, the amount being determined each year by the budget committee and the finance committee and depending upon the size of the general appropriation and the special need for publishing in the particular year. It has been the universal practice to keep printing expenditures within the amount set aside for that purpose in the annual budget. To do this, publication has sometimes been delayed until another fiscal year, or experimentalists have been advised to withhold the preparation of manuscript. These publications are vital to agriculture and furnish the means of carrying experiment station results to the farmers for whom they are gathered. The mailing lists are conservatively managed and no name is added except on specific request of the farmer. There is some distribution at special demonstrations. The size of editions varies according to the extent of interest in the different lines of agriculture, as swine husbandry, fruit growing, dairy production, etc. The mailing lists are also carefully classified to avoid waste in distribution.

For certain research publications Federal appropriations to the College are utilized in part.

6. *Engineering Experiment Station:* This class contains the publications of the Engineering Experiment Station, dealing with the various experimental results in highway construction, drain tile tests and investigations, farm sewage disposal and the like. They are likewise vital to the industries and business of the state which need engineering aid.

These publications are paid for much as the agricultural experiment station publications. They are printed in much smaller editions and the distribution is more restricted.

7. *Extension Service:* In this class of publications are included the various educational leaflets of the extension service dealing with agriculture and home economics. These leaflets are essential in extension work and add much to the program of carrying the college to those who need its help but cannot come to the college for it. These publications differ from experiment station publications in that the extension publications present information that is common in the field of agricultural instruction, while experiment station publications present information that arises out of the experimental and investigational work of the station and is more or less new and original.

These publications are paid for out of funds appropriated by the General Assembly for extension work, the amount set aside for printing being determined by the finance committee when the annual budget of the extension service is made up. Distribution is mainly through the various classes and special meetings held by the extension lecturers and demonstrators and through county agents.

In the case of all experiment station and extension publications, when it is proposed to publish a bulletin or circular, the author takes up the matter with the chief of his line of work, who in turn takes it up with the director of the experiment station or of extension. If the project is approved, the manuscript is prepared. Then it goes to the heads of departments or sections interested for consideration and approval, then to the office of the director, who refers it to a committee of interested specialists, who pass on the merit and accuracy of the manuscript and either recommend it for publication, with or without revision or change, or for rejection. This committee's report is acted upon by a meeting of all members of the station staff. Then it must be edited and is subject to such further revision as may be agreed upon by those concerned. The size of the edition is determined in each special case. Whether or not a publication shall be issued at any particular time is determined according to whether funds are available in the printing budget of the experiment station.

THE STATE UNIVERSITY

PUBLICATIONS: The University publishes and mails as second class matter the following series: (1) Bulletin of the State University of Iowa; (2) University of Iowa Studies; (3) University of Iowa Extension Bulletin; (4) University of Iowa Service Bulletin; (5) University of Iowa News Letter; (6) Iowa Law Bulletin.

1. *Bulletin of State University of Iowa.* This bulletin is issued semi-monthly from July to March and weekly from April to June. It contains the official reports and announcements of the University, including the catalog, the abridged catalog, an illustrated bulletin, and the announcements of the colleges, schools and departments. In recent years the catalog has been published in a single unit without separates. The last issue was published in a smaller edition, and a certain number of added copies of two sections, non-professional and professional courses, in order to promote economy in answering inquiries. The catalog is needlessly

bulky in the opinion of this Board and suggestions have been made to reduce it. Such departments as the Summer Session, the School of Nursing, and the School of Music appeal to different persons and the style, together with the contents, of bulletins issued for these varies according to the clientele.

- II. **University of Iowa Studies.** This series constitutes the publication of the results of research of faculty and students of the University. It is published monthly. The Studies are issued as a function of the Graduate College and by a Board of Publication elected by the faculty of this College.

The Board of Publications has a regular procedure. Manuscripts are submitted to the editor of the special series appertaining to the subject. This editor reads the manuscript and passes judgment upon its availability. Then the manuscript is submitted to the chairman of the Board of Publication who is the Dean of the Graduate College. He appoints a committee of three who are to read the manuscript and make recommendation to the Board of Publication. If they adjudge the manuscript available the Board of Publication makes the necessary appropriation out of the fund assigned for this purpose by the Board of Education.

The University sends these Studies to the libraries of the leading institutions of learning in the world, and receives their like studies in return. Besides there is supplied a few of the technical publications in each branch of science mainly for the purpose of review, and some copies are sent to distinguished scholars. In some cases the University sells a good many copies every year. The University of Iowa Studies are held by University authorities as perhaps the institution's best justification in the eyes of scholars. Naturally the majority of such studies are extremely technical.

These studies are standardized as follows:

STUDIES IN NATURAL HISTORY—Devoted to botany, geology, and zoology, and the oldest in the series, having been begun by Calvin and Macbride in 1888.

STUDIES IN PSYCHOLOGY—A biennial publication in which Iowa has a working agreement with Princeton.

STUDIES IN THE SOCIAL SCIENCES—Devoted to economics, history, and politics.

SCIENTIFIC STUDIES—Devoted to languages, literature, and

STUDIES IN EDUCATION—Devoted to educational research.

STUDIES IN MEDICINE—A reprint series of medical and surgical research.

STUDIES IN CHILD WELFARE—Devoted to research in child welfare.

AIMS AND PROGRESS OF RESEARCH—More general articles and in part administrative in scope.

- III. **University of Iowa Extension Bulletins:** The Extension Bulletins are intended to be issued semi-monthly, but some numbers are omitted. Representing as they do all departments of the University these bulletins are divergent in their content. Some of them are

issued in small editions for special classes of people; a few have been issued in large editions. Issues treating of the care of children have been most widely demanded and circulated. These bulletins are paid for out of Extension Division funds appropriated by the General Assembly.

- IV. **University of Iowa Service Bulletin:** The Service Bulletin is issued to present special facilities of the University and to furnish aid to teachers and other citizens of the State. The Bulletin is now in its fifth year. It is said to be the most popular of all the University publications, as it is one of the cheapest. Requests for copies come from all parts of the United States.

V. **University of Iowa News Letter.** The News Letter is a clipping sheet, issued weekly and furnished to all the newspapers of the State of Iowa, together with a selected list of other journals. It contains in journalistic style announcements and news of the University.

- VI. **Iowa Law Bulletin:** The Law Bulletin is a quarterly, published under a special grant of the Board of Education. It is edited and issued by members of the faculty of the College of Law. Publication is under the direction of the law faculty.

Another class includes the business forms necessary for a very large establishment, including stationery, office forms, etc., for from fifty to one hundred departments; also a large variety of forms and blanks and reports for various technical departments such as the hospitals and infirmaries. With the large numbers passing through the University bounds, the amount of such materials passes into a considerable figure. Libraries and laboratories also require a certain number of records and forms, both for the needs of general instruction and for the results of research. Certain departments are able to conduct their proper work in these days only by the aid of the printing press. There is also quite an amount of material required in the way of schedules, programs, and the like. Even for the registration and records of six or seven thousand students a large quantity of forms and programs are demanded.

The University gets some revenue from the sale of printed matter. The annual directory is an outstanding feature. It sells on a basis that makes it self-supporting. Other items are Child Welfare Bulletins and grammar test sheets. The total of such revenue may be about \$2,500 to \$3,000 a year. Exact figures are not readily obtainable.

STATE TEACHERS COLLEGE

The printing required by Iowa State Teachers College at Cedar Falls consists principally of catalogs and bulletins. One general catalog of from 200 to 300 pages is issued annually, usually 7,000 copies. Several other bulletins of from 24 to 100 pages are included in a series of publications. The number of copies is usually about 2,000 of each, though 15,000 or 20,000 copies of the Summer Term bulletin are required. The forthcoming annual catalog is to be much smaller than here indicated.

Each quarter an eight page news letter, 8x11 inches, is issued. This keeps the institution closely in touch with its alumni.

Letterheads and envelopes printed with the return address of the college are issued in a limited number for the general use of the faculty. More than 20,000 envelopes of various sizes and styles, with return address are needed each year for mailing catalogs and bulletins.

The smaller jobs cannot be enumerated; though, in total, they do not reach in cost any of the foregoing items.

A few thousand magazines, books and pamphlets per year must be cared for in the matter of binding so that the needs of the library may be fully met.

Considerable printing along the lines of blanks and cards is needed by the Extension Division. However, most of the needs of the Extension work are met by mimeograph copies which are prepared in the college office.

THE PROBLEM OF SUPERVISION

The problem of supervising at long range the large volume of printing involved presented itself at once as a difficult one, and it cannot be said that it has been completely solved at the time this report is written. The provision in the law authorizing the Board to appoint assistants at these institutions is of some avail. These assistants, however, are, for the most part, nominal. They are employes of the institutions, and not of this Board. In each case the person designated for the place was so designated upon recommendation of the institution authorities, as follows: Ames, G. P. Bowdish, purchasing agent of the college; Iowa City, W. H. Bates, secretary of the University; Cedar Falls, Benjamin Boardman, secretary of the college. None of these professes to any special knowledge of printing. They are important executives of their respective institutions and are busy with many duties. They, however, in each instance, afford an avenue of approach. Also, these men and all others connected with the institutions have shown every disposition to co-operate in every way to make the plan a success. So, any difficulties that persist are not due to any lack of the proper spirit on the part of the institution people. The matter may be illustrated in this way: Locate this Board at Iowa City, say, and let it try to supervise in an effective way State House printing requirements through a nominal representation in Des Moines who is in other employ and who does not have any special knowledge of printing. However willing such representative might be, it could hardly be expected that the judgment and special knowledge that the many intricacies of the business call for could be supplied.

It seemed best to make haste slowly. Some experimenting was done, and, in some respects, this stage has not yet been passed. For the current year, a general contract carrying the bulk of the miscel-

aneous small jobs for Ames is held by a Des Moines concern. This makes it easy to have all Ames requirements pass directly through the Printing Board's offices in Des Moines. In the case of the University, a parallel contract is held by an Iowa City printer. An effort is being made to administer it and other printing matters there at long range, without running the orders through the printing Board's hands in Des Moines, but with only indifferent success and with instances frequently arising that develop acts of which the Board is nominally the author that put the whole arrangement in an absurd light.

It may be that the problem of supervision can be solved only by having all requisitions sent to the main office of the Printing Board. The objection is delay, but that would not be serious, perhaps, and exceptions could be provided for.

The Cedar Falls situation is easily handled at long range. The volume of work is small and the number of orders only about one-tenth as great as at Iowa City or Ames. The greater variety at the two larger institutions also makes a difference.

This discussion of the difficulties of supervision of the institution printing is not meant to convey the idea that there is anything insuperable in the situation. Supervision, however, is the crux of the matter. How to develop a situation free from the evils of divided and illy defined duties, responsibilities and authority and at the same time not introduce embarrassing delays—that is the nut to crack. Once the problem of effective contract is solved, the rest becomes much easier.

RECOMMENDATIONS

The Board makes the following recommendations, based on experience as reviewed in the foregoing pages:

That the law be amended in the following particulars:

1. To raise from \$200 to \$500 the limit fixed in section 30 of the present state printing law.
2. To give the Board authority to fix the term of contract within a three year limit.
3. To make clear the status of the State Historical Society with regard to printing matters.
4. To clarify the statutes with regard to what departments are to have reports printed and when each shall be filed; and with regard to reporting period of each department.
5. To reduce the document edition of reports to not more than 500 copies.

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