

# THE SPRINGFIELD SURVEY

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## I

### THE SCHOOLS OF SPRINGFIELD, ILLINOIS.

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## II

### RECREATION IN SPRINGFIELD, ILLINOIS.

LEE F. HANMER, Director, and CLARENCE ARTHUR PERRY, Associate Director, Department of Recreation, Russell Sage Foundation.

## III

### HOUSING IN SPRINGFIELD, ILLINOIS.

JOHN IHLDER, Field Secretary, National Housing Association.

## IV

### CARE OF MENTAL DEFECTIVES, THE INSANE, AND ALCOHOLICS IN SPRINGFIELD, ILLINOIS.

WALTER M. TREADWAY, M.D., Assistant Surgeon, U. S. Public Health Service for National Committee for Mental Hygiene.

## V

### PUBLIC HEALTH IN SPRINGFIELD, ILLINOIS.

FRANZ SCHNEIDER, JR., Sanitarian, Department of Surveys and Exhibits, Russell Sage Foundation.

## VI

### THE CORRECTIONAL SYSTEM OF SPRINGFIELD, ILLINOIS.

ZENAS L. POTTER, Department of Surveys and Exhibits, Russell Sage Foundation.

## VII

### THE CHARITIES OF SPRINGFIELD, ILLINOIS.

FRANCIS H. MCLEAN, General Secretary, American Association of Societies for Organizing Charity.

## VIII

### INDUSTRIAL CONDITIONS IN SPRINGFIELD, ILLINOIS.

LOUISE C. ODENCRANTZ, Committee on Women's Work, and ZENAS L. POTTER, Department of Surveys and Exhibits, Russell Sage Foundation.

## IX

### CITY AND COUNTY ADMINISTRATION IN SPRINGFIELD, ILLINOIS.

D. O. DECKER, Civic Commissioner, Commerce Club, St. Joseph, Missouri, and SHELBY M. HARRISON, Director, Department of Surveys and Exhibits, Russell Sage Foundation.

## X

### SPRINGFIELD: THE SURVEY SUMMED UP.

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### SPRINGFIELD SURVEY EXHIBITION:

Findings and recommendations of the Survey were presented in an Exhibition in Springfield, under the direction of E. G. ROUTZAHN, Associate Director, Department of Surveys and Exhibits; MARY SWAIN ROUTZAHN, Exhibition Director; and WALTER STOREY, Director of Design and Construction.



# CITY AND COUNTY ADMINISTRATION IN SPRINGFIELD, ILLINOIS

VEY BY THE DEPARTMENT OF SURVEYS AND  
EXHIBITS, RUSSELL SAGE FOUNDATION

D. O. DECKER  
SHELBY M. HARRISON

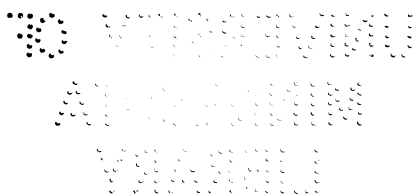


THE SPRINGFIELD SURVEY  
GOVERNMENT EFFICIENCY SECTION

SPRINGFIELD SURVEY COMMITTEE  
SPRINGFIELD, ILLINOIS

October, 1917

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## TABLE OF CONTENTS\*

|   | PAGE |
|---|------|
| List of illustrations.....  | vii  |
| List of tables.....   | ix   |
| I. INTRODUCTION: SPRINGFIELD AND THE SURVEY OF GOVERNMENT EFFICIENCY..... |      |
|   | I    |
| II. GENERAL ORGANIZATION AND ADMINISTRATION OF THE CITY GOVERNMENT.....   |      |
|   | 9    |
| III. COMMUNITY SERVICE THROUGH THE MUNICIPALITY.....                      |      |
|   | 37   |
| Fire Department.....  | 37   |
| Bureau of Buildings.....  | 49   |
| Water, Light, and Power Department.....                                   | 51   |
| City Light Plant.....   | 60   |
| Gas and Meter Inspection.....   | 64   |
| Bureau of Weights and Measures.....                                       | 66   |
| City Law Department.....  | 67   |
| Department of Streets and Public Improvements.....                        | 68   |
| Cemetery Administration.....  | 87   |
| Elections.....  | 89   |
| IV. CURRENT INCOME OF THE CITY GOVERNMENT.....                            |      |
|   | 96   |
| V. THE HANDLING OF THE SPECIAL FUNDS OF THE CITY.....                     |      |
|   | 120  |
| VI. CERTAIN PHASES OF SANGAMON COUNTY GOVERNMENT.....                     |      |
|   | 133  |

## APPENDICES

|   |     |
|---|-----|
| A. Steps Suggested For the Formulation of the City or County Budget     | 149 |
| B. Conclusions of Special Tax Commission of the State of Illinois, 1910 | 151 |

\* Other departments of the city and county government, such as the city departments of health and police, the public school system, public recreational agencies, the correctional system, public care of dependents, delinquents and defectives, etc., are discussed in the other sections of the Springfield Survey reports.

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## LIST OF ILLUSTRATIONS

|  | PAGE |
|--|------|
| Fire Department Equipment . . . . .  | 40   |
| An Engine House of the Springfield Fire Department . . . . .   | 41   |
| Modern Equipment in the Water Department . . . . .   | 53   |
| Wise Economy in Street-Making . . . . .  | 69   |
| Effect of Water on the Pavement . . . . .  | 71   |
| When the Pavement Foundation is Faulty . . . . .   | 72   |
| Faulty Replacement of Street Opening . . . . .   | 74   |
| Cuts in Pavements . . . . .  | 76   |
| A Street Crossing in Dayton, Ohio . . . . .  | 77   |
| A Railroad and Street Crossing . . . . .   | 78   |
| A Springfield Street Sprinkler at Work . . . . .   | 80   |
| Ruts in a City Dirt-Road . . . . .   | 81   |
| Weeds Between the Property Line and the Curb . . . . .   | 83   |
| Care and Renewal of Trees . . . . .  | 85   |
| Lot Valuations from Corner to Corner (Diagram 1) . . . . .   | 105  |
| Section of One of the Land-Value Maps Used by City Assessors in New<br>York City in 1917 (Diagram 2) . . . . . | 109  |
| Section of Land-Value Map in County Clerk's Office in Springfield (Dia-<br>gram 3) . . . . .                   | 110  |





## LIST OF TABLES

| TABLE   | PAGE |
|---|------|
| 1. Water-Consumption and Meter-Installation in Springfield, Illinois, for Each of the Five Years Ending February 28, 1911-1915. . . .                             | 55   |
| 2. Mileage of Paved Streets in Springfield, Illinois, in the Year 1914. . .   | 68   |
| 3. Illustrative Schedule of Percentages to be Applied to Lot Valuations Made up According to Depth of Lot. . . . .  | 103  |
| 4. Tax Rates Levied in the City of Springfield during the Fourteen Years from 1903 to 1916 Inclusive. . . . .   | 112  |
| 5. Approximate Balance of City Funds Retained by the County Treasurer on Dates Specified, after Partial Transfer of Funds to the City Treasurer was made. . . . . | 115  |
| 6. Amounts Owed on Anticipation Tax-warrants, and Each Month during the Fiscal Year Ending February 28, 1914. Springfield, Illinois. . . . .                      | 121  |
| 7. Outstanding Bonds of the City of Springfield, Illinois, on February 28, 1915. . . . .  | 124  |
| 8. Sinking Funds for the Retirement of Springfield Bonds Provided for by Ordinance of April 5, 1909. . . . .  | 125  |
| 9. Elective Officers with Their Terms of Office in Sangamon County, Illinois. . . . .   | 134  |
| 10. Schedule of Funds Needed in Sangamon County, Used as a Basis for the Tax Levy for the Year Beginning September 1, 1915. . . . .                               | 136  |



# I

## INTRODUCTION

### SPRINGFIELD AND THE SURVEY OF GOVERNMENT EFFICIENCY

City government, as well as county government, is instituted for effective community service. It is set up because certain services which the community as a whole needs appear to be provided best through large-scale co-operation. Instead of each city dweller's providing his own fire protection, for example, the cost promises to be less and the protection to be greater if residents unite to establish a service which will meet the needs of all and be paid for on some equitable basis. Similarly, instead of each family's maintaining a school for its own children, citizens find it desirable to unite in furnishing school facilities. Not only are greater efficiency and economy effected, but the broad interests of the community are better served.

Public agencies thus have an important bearing upon the general welfare of the community; and the individual is concerned in the co-operative enterprise in a number of vital ways. He provides the funds; he expects to share, either directly or indirectly, in the benefits which his money buys; and he wishes to see others share in the benefits. It is *his* enterprise; it uses his money; it is designed to serve his purposes and needs.

The ordinary individual is thoroughly interested in projects supported by himself and from which he expects a return. The natural presumption would be that he would be thoroughly interested in this community enterprise, his city government; but too often the facts show him indifferent,—except, perhaps, at election time,—when his interest often is as much in the contest itself as in the issues involved. And this lack of interest is responsible in large degree for his not being better served.

One reason for the indifference of most people to the kind of work done by the government is that many citizens think of its

## THE SPRINGFIELD SURVEY

cost and service to them and their relation to it, if at all, in terms of tax bills; and since the actual tax payment of the majority is small, they feel that at most they cannot be greatly affected by the methods employed in public offices. Good public service is understood by few, and economies, by the time they have become effective to tax payers in reduced taxes, seem so small as to be hardly worth making an effort to secure. This, of course, is to lose sight of the fact that taxes are often shifted—in the form of higher rents or other increased costs of living—to the shoulders of the many who, while not making their payments in the form of taxes, nevertheless in a very real sense become ultimate taxpayers. It is to lose sight too, as has been suggested, of the fact that there are a score of other ways—found in the kind of return he gets for his tax—in which the tax payer is affected; for example, in the adequacy and quality of the protection furnished him and the community by the fire department, the police department, and the health department, particularly, in the case of the latter, through promoting health education and preventing the spread of disease.

Another reason for the indifference of many people is found in their belief that public affairs are too complicated to be mastered in the little free time they have to give to such matters. Still others have no interest—and these form a large group—because they have little or no definite information upon the policies, methods, and main activities of the local government. The failure of American cities to issue reports giving such information is surprisingly common throughout the country.

## PURPOSE

The purpose of this survey stated in general terms was to improve the public service. To that end the present report aims, first, by presenting data on the main administrative functions of the local governments examined, to stimulate interest in public affairs; second, to point out opportunities for economy which in the aggregate will affect each citizen to an appreciable extent; and, third, to suggest changes in the scope of public activities and in the methods of carrying on the public business that will eventually give both citizen and community a larger return for money expended.

## CITY AND COUNTY ADMINISTRATION

The material here presented is not concerned with personalities; it aims neither to condemn nor to endorse any particular individual or individuals. Rather it is concerned, as already indicated, with programs, administrative functions, methods and procedures; for it is believed that these have a large part in determining public efficiency. Neither is the choice of the particular officials who must put the methods into operation a part of the present discussion.

### SCOPE

The report deals with conditions found to exist in the city of Springfield and in Sangamon County, in which Springfield is located, during the spring and summer of 1914, supplemented by an additional week of investigating in Springfield a year later. While the findings, in the main, show the conditions that prevailed at the time of the field work, it has nevertheless been possible, in many instances, to bring the data more nearly up to publication date. As far as practicable, all important developments since the survey began are noted.

The work of city and of county is so interrelated and interdependent that it was deemed best to examine and report, as far as time and space would allow, upon what was being done in both.

This examination of government administration formed part of a general survey of Springfield, which included eight other main divisions—the public schools, recreation, delinquency and correction, public health, mental hygiene, charities, housing, and industrial and work conditions—each of which has been reported on separately. Since all these reports, in dealing with the local needs and with the agencies designed to meet the needs, necessarily took up important phases of city and county administration related to them, consideration of these phases was omitted, in the main, from the present investigation and report. In other words, this division of the survey deals chiefly with the work of public agencies not covered in the other divisions.\* The reader is therefore referred to the reports on the earlier divisions for a

\* In a few instances the work of public agencies is discussed in both places—in other divisions of the survey and in this report—but in those cases the approach is from slightly different angles.

## THE SPRINGFIELD SURVEY

discussion of: the public schools, including the organization of the board of education and the school system, receipts and disbursements for public education, the school plant, the teaching force, the course of study and quality of class-room instruction, the enforcement of compulsory education and the wider use of the school plant; public agencies dealing with recreation, including parks, library, museum, schools, and the use of the streets; the correctional system, including the police department and the sheriff's force, the city prison, the county jail, the detention home, offices of the city attorney and the state's attorney, justices of the peace, city magistrates, county and circuit courts, the juvenile court, and probation work; public health, including the city water department and the health department; mental hygiene, including the handling of mental defectives, the insane, and alcoholics by such public agencies as the public schools, courts, jails, and the almshouse; charities, including the care of dependents in the almshouse, care of dependents by the township overseer of the poor and by the court, and the free medical service provided by the city physician; the public regulation of housing conditions; and finally, industrial conditions, including the prevention of fire in working places, and the enforcement of regulations applying to hours of work and child labor.\* With the above matters already examined there still remained a large number to be covered.

The survey of city and county administration fell into four main lines of presentation:

First, the plans on which the local governments were organized and administered—a general view of the machinery set up for providing public service.

Second, the organization and efficiency of the particular departments of the city charged with furnishing this service—the methods used in spending the tax payer's dollar.

Third, the assessment and collection of the government income—the methods of raising the money to be used for all current public purposes.

\* This list obviously does not include all the topics dealt with in other divisions of the survey. It includes only the more important ones which are directly related to the efficient administration of the government work, omitting reference to the work of individuals and of private agencies.

## CITY AND COUNTY ADMINISTRATION

Fourth, the methods of handling the special funds of the city—the practices followed in public borrowing, in levying special assessments, and in meeting other than current expenses.

Thus the survey of city and county administration has been concerned with the methods used in securing the funds and in purchasing public service through still other local agencies than those examined in the previous divisions of the survey reported upon; such agencies, among others, for example, in the city, as the fire department, water department, street-cleaning, street-lighting, and building departments.

### METHOD

The method of investigation comprised personal examination of the public offices of city and county while in active operation; study of the records of these offices, and interviews with the officers in charge; a study of the published documents and of legislation bearing upon the local public administration; and a consideration of the conditions in different parts of the city which were related to the problem in hand. The methods in more detail are described in connection with the presentation of some of the findings.

A summary of the findings and of the recommendations in this division of the survey was presented in the Survey Exhibition held at Springfield in December, 1914, a few months after the completion of the field investigations; and while the publication of this fuller report has had to wait the completion of the reports of the other divisions, it is believed that the facts here presented, with the additional material supplied by an account of more recent developments, give an accurate picture of the main features of the local city and county administration.

### ACKNOWLEDGMENT

Much, as will be seen, was found to commend in each office and department examined, but space does not permit a very full statement of these commendations, since, as already stated, the primary purpose of the report is to offer suggestion where improvement is needed. The writers particularly wish to thank the city and county officials for their uniform courtesy and assistance

## THE SPRINGFIELD SURVEY

during the investigation. Without their co-operation, the field work would have been impossible within the limited time at the disposal of the investigators.

### CITY AND COUNTY IN GENERAL

Springfield is the seat of government of Sangamon County, as well as being the capital of Illinois. When in addition to the work of county and state officials that of the city is taken into consideration, it will be seen that a large number of residents are engaged in the public service. The city is also a considerable mining, manufacturing, and trading center.

As capital of the state it has some advantage in obtaining needed legislation and in keeping in touch with government work and measures affecting the whole state. Moreover, its central location makes it accessible to visitors from all parts of the state, which in addition to its position as seat of the government gives it an opportunity for leadership among the municipalities of Illinois.

Its population in 1910 totaled about 52,000; that of Sangamon County, exclusive of Springfield, about 39,000; the population of county and city was therefore about 91,000. There were no other cities, the largest urban center outside of Springfield being Riverton Village, which had only 1911 people. Since 1910 the growth of Springfield, according to the United States census, has been about 1500 a year, so that in 1914 it contained about 58,000 inhabitants.

A very large proportion of these, about 81 per cent, were American-born whites. An additional 6 per cent were Negroes, practically all of whom were also American born. The remaining 13 per cent were foreign-born whites. The county, like its county seat, had a high percentage of American-born white people among its population. The proportion of Negroes was lower, however, being a little under 2 per cent.

In each of the three larger groups of peoples, the proportion of males of voting age to the total of persons in the particular group was greatest among the foreign born, where it was 49 per cent, and among the Negroes, where it was 35 per cent. Among native-born whites, 28 per cent were males of voting age. Even



## CITY AND COUNTY ADMINISTRATION

with this low percentage, native-born white males of voting age represented 73 per cent of all males of voting age in the city. Six per cent of the total number of males of voting age were Negroes, and the remaining 21 per cent foreign born. To state this another way, although the native-born white males of voting age represented only 28 per cent of the whole native-born white population, the native-born white population itself constituted such a large part of the entire population that its males of voting age represented the high proportion of 73 per cent of all males of voting age in the city.

The proportion of native-born white males in Springfield in 1910 was much higher than in all the other Illinois cities of 25,000 or more population taken together. The relative number of Negroes of voting age in Springfield was also higher than that in all Illinois cities of 25,000. In other words, as compared with the total of Illinois cities of 25,000 population and over, Springfield had a very low proportion of foreign-born whites among its males of voting age; and, conversely, it had a very high proportion of native-born whites and a high proportion of Negroes.

Since 1910, however, when the last census figures were compiled, women have been given the vote in Illinois.\* This has obviously increased the number of voters, but probably has not greatly changed the proportions between the native-born whites, foreign-born whites, and Negroes, of voting age, on the one hand, and the whole number of persons of voting age, on the other.

Of course not all the foreign-born males old enough to vote were necessarily voters. As a matter of fact, only 58 per cent in Springfield in 1910 had become naturalized, and only 7 per cent more had taken out first papers. The proportion of foreign-born males of voting age who had been naturalized or had taken out first papers, in the same year, was about the same for Sanga-

\* The Illinois Woman Suffrage Law of 1913 granted women the right to vote for presidential electors, members of the state board of equalization, clerk of the appellate court, county collector, county surveyor, members of board of assessors, members of board of review, sanitary district trustee, and for all officers of cities, villages, and towns (except police magistrates), and upon all questions or propositions submitted to a vote of the electors of such municipalities or other political divisions of the state. They may also vote for the following township officers: supervisors, town clerk, assessor, collector and highway commissioner, and may also participate and vote in all annual and special town meetings in the township in which such election district shall be.

#### THE SPRINGFIELD SURVEY

mon County as a whole as it was for Springfield, but the proportion for the city and county was much higher than for all Illinois cities of 25,000 or more taken together. The largest foreign-born groups in the city, over 70 per cent of all those born outside the United States, were natives of Germany, the British Isles, Russia, and Finland.

About 5 per cent of Springfield's population 10 years of age and over were illiterate, the larger numbers being among the foreign-born and the Negroes.

## II

### GENERAL ORGANIZATION AND ADMINISTRATION OF THE CITY GOVERNMENT

#### GOVERNMENT BY COMMISSION

Springfield is one of the 85 cities of over 30,000 population in the United States which in February, 1916, were reported by the Census Bureau to be under commission government. The change to this system in Springfield was made in 1911, when only some thirty-odd cities had taken such action. The charter provided for a commission of five, one of whom should be the mayor. The four remaining officers are the Commissioner of Public Health and Safety, the Commissioner of Public Property, the Commissioner of Streets and Public Improvements, and the Commissioner of Accounts and Finances. They are all elected at large in the city.

Except in the case of the mayor, who is elected for particular duties, the commissioners decide among themselves after election what department each member shall administer. Among the duties of the mayor are the supervision of the work of the comptroller, that of the city attorney, corporation counsel, civil service commission, and of the inspectors of weights and measures.

The Commissioner of Public Health and Safety, during the last few years has been in charge of the fire, police, and health departments, of the city prison, isolation hospital, and the work of the building and electrical inspectors; the Commissioner of Public Property has under his direction the municipal lighting plant, the water-works department, and the custody of the city hall; the Commissioner of Streets and Public Improvements is responsible for street-paving, street-cleaning and repairing, sewer repairs and extensions, sidewalk inspection, garbage-incineration, and the work of the city engineer and of the superintendent of special assessments; and the Commissioner of Accounts and

## THE SPRINGFIELD SURVEY

Finances for the offices of the city clerk and city treasurer. The mayor, in addition to his other duties, through his power to appoint members of the city civil service commission, exercises considerable control over the personnel and policy of the police department, and through his power to issue and revoke saloon licenses may exercise an influence for or against law-enforcement in places that sell liquors.

While these are the divisions of work between the different commissioners that have been followed for the most part, the commission may by ordinance, within certain limits, reapportion their administrative functions. Practically all of the subordinate officials in the departments are appointed by the commission as a whole; the exceptions are a number of employes who are appointed by the executive head in charge of a department. Only part of those in the employ of the city are under civil service regulations.

This is the machinery set up to provide public service through the municipal government. In addition, and as a means to these ends, the commission deals with questions of general public policy, including the raising of budget funds and their apportionment.

### OTHER CITY GOVERNMENT BODIES

Not all of the local public service, however, is supplied or administered by the city government proper—the body presided over by the mayor and the city commission. The public schools are separate, having their own board elected at large and endowed with separate taxing power.\* Similarly the public parks are under a board of seven members elected at large in the park district, which includes the city and considerable territory surrounding it that, however, supplies but a relatively small additional population. The park board also levies its own taxes. The public library is managed by a board of nine, appointed by the mayor.† Funds for its support are included in the tax-levy of

\* For a discussion of the work of the Springfield board of education, see companion report, *The Public Schools of Springfield, Illinois*, by Leonard P. Ayres. (*The Springfield Survey*.)

† For a discussion of the library, see companion report, *Recreation in Springfield, Illinois*, by Lee F. Hanmer and Clarence Arthur Perry, pp. 36 and 68–69. (*The Springfield Survey*.)

## CITY AND COUNTY ADMINISTRATION

the city. The city cemetery is likewise managed by a separate board appointed by the mayor. It is self-supporting.\*

### ELECTION OF CITY COMMISSIONERS

As already pointed out, in Springfield the mayor only is chosen for specific tasks, the allotment of commissionerships being made after the commissioners are elected. Thus a man exceptionally qualified to have charge of finances may not be given such work and instead may be assigned to that for which he is not at all fitted. Moreover, even should he grow fit through practice, there is no assurance under the system pursued that if he is continued in service he will be continued in the same office. There is little doubt but that most of the votes in the past cast for the election of certain Springfield commissioners who had made good records in particular departments were cast to keep these men at their old work; yet there was no certainty that they would be so kept. A better plan would be to elect men for clearly defined places in the public service. Such a procedure would avoid the anomaly found in one city where a barber with little experience in managing affairs after becoming city commissioner was put in charge of the water and electric-lighting plants.

Moreover election to definite duties would tend to separate issues now confused. For instance, law-enforcement is one among many questions relating to efficient administrative work by the government, and it at least should be separated from the other issues. Any doubts as to the policy on law-enforcement could, under the plan suggested, be settled in the case of Springfield by the avowed policy of the candidates nominated for commissioner of public health and safety.† And certain questions of municipal ownership, live local issues everywhere, could in Springfield be separated from other confusing questions by the avowed policies of the various candidates for commissioner of

\* See pages 87-88 of this report where the administration of the cemetery is discussed.

† The issue as to the enforcement of law could be made still more definite by placing such enforcement under an officer having control of that alone—say the mayor. This question of public policy is of sufficient moment to be separated from the more technical questions of health and protection against fire. It is also confused, as already indicated, by the mayor's relation to the civil service commission.

## THE SPRINGFIELD SURVEY

public property. The system prevailing in Springfield lends itself to a misdirection of the attention and thought of citizens, by bringing to the front in each election campaign one or two issues at the expense of all others. Befogging real issues is the last stronghold of the professional politician and of the special interests who wish to use him. No consistent progress can be made while it remains possible to do this.

### CITY-MANAGER FORM OF GOVERNMENT

Indeed, the city-manager plan of government, which has been adopted in nearly 100 cities within the last eight or nine years, goes even a step further than the plan just suggested. It provides for the electing of those officers whose work will be the determination of programs and the enactment of laws, and provides for the *appointment* of those officers, to be chosen because of special fitness, who will do the administrative work. The city-manager plan regards administration as a profession, and proceeds on the belief that the man who makes good is more likely to be retained if he can be appointed by a responsible officer who has been elected on a platform of efficient administration than if he must submit to the uncertainty of a general election, especially in cases where issues are likely to be confused or deliberately befogged. Moreover, it assumes that the responsible head of the government may become an expert in knowing who are competent administrators.

Springfield, however, has been more fortunate than many cities in its election of commissioners, and a radical change in the form of government does not seem a necessity. But if the citizens of Springfield contemplate a change the city-manager plan, where all administrators are appointed, is very much worth serious consideration. It would be a mistake to return to the large-council system of former days, toward which some agitation in the city has been recently directed.

### THE SHORT BALLOT

Springfield has an administrative asset in its short ballot. On it only the names of the candidates for the mayoralty and the four other commissionerships appear. This centralizes public

## CITY AND COUNTY ADMINISTRATION

opinion and insures a more careful selection of officers. In turn, the appointments made by so small a group of officers are likely to be of a higher type than is the case where the appointive power is distributed among a large and, therefore, less responsible group, as was the case in the older large councils.

### APPOINTMENT OF DEPARTMENT HEADS

The principle involved in the appointment system is recognized in the Springfield commission-government plan in that the commissioners appoint their subordinate department heads. If commissioners are to be charged with administrative duties, as in Springfield, it is believed best, as has been suggested, to elect them to specific commissionerships, and trust to getting the right men into office. But whether so elected or by the method that now prevails, there appears to be no good reason why the city should change its scheme of selecting department heads.

### CIVIL SERVICE COMMISSION

Springfield has a civil service commission of three members, appointed by the mayor, each serving three years at an annual salary of \$1000. One is appointed each year. Practically all the work is done by a chief examiner, who also receives \$1000 a year. The commissioners only supervise him. The commission was created by state law and the salaries are fixed by the same law.

During 1915, only 31 persons received appointments after certification by the commission; four of these were laborers. In addition, six men were promoted from the certified lists furnished by this body. The expenses of the commission were \$4,292.

This made the cost of each appointment \$138.45, or, if promotions are included, \$116.00—a sum utterly out of reason and an excellent illustration of what Springfield might save if it could regulate its municipal affairs instead of having them regulated by the legislature. The civil service commissioners in Springfield should not be paid salaries, or at most these should be only nominal. The duties are not nearly so onerous as those connected with the library board or the board of education, all of whose members serve without compensation.

## THE SPRINGFIELD SURVEY

### CIVIL SERVICE APPOINTMENTS

The custom of the commission in submitting the names of persons for appointment at the time of our inquiry was to send in but one—that at the head of the list; but for promotion three names were submitted. It is obviously better, in submitting names for appointments, to send the two or three standing highest. Every one knows that an examination is only an approximate test, and no test at all of a most important qualification—personality. Something should be trusted to the appointive officer if good results are to be had and the civil service method of appointment is to be more than a necessary evil.

The examination questions used in Springfield for the various positions were to be commended. They showed an intelligent effort to obtain high-grade men. One instance was noted, however, in which the practical character of the questions appeared to have been carried too far. In examining candidates for the local water department, the commission held up standards that apparently only those who had already worked in the water department or had made a long study of its routine could reach. The futility of such procedure is obvious.

Some years ago efficiency records for civil service employees were kept; but for an unknown reason they were later abandoned. Such a system of records should again be installed since it is essential to have full information on ability, performance, and character in passing upon promotions, demotions, and dismissals. The system previously employed may have had defects—one such, the fact that no detailed time and service records were kept, was noted—but the principle is correct and the practical details should be worked out rather than to abandon the whole plan. Other records, forms, and the indexes of the department were found in good working-order.

### CIVIL SERVICE DISMISSALS

A superior officer cannot be held responsible unless he has control over all who do the detail work of his department. Particularly is this an essential in commission government, which is almost sure to fail unless it has full centralization of responsi-



bility. Yet civil service regulations in Springfield give the commissioner or the department head little power over his subordinates. Dismissal is provided for through charges made by the employer to the civil service commission, which then conducts a trial. In theory, trials by civil service commissions afford a sure way to remove undesirable employes, but with few exceptions administrators will testify that such a system does not work and that employes know it does not. A situation is thus created which destroys discipline and is fatal to efficiency.

In the case of public employes, with the possible exception of policemen and firemen, better administrative results would be obtained if each could be discharged simply after his superior officer had given the reasons in writing to his employe and afforded him an opportunity to make a verbal explanation or refutation of the alleged causes.\* This method would not in any way destroy or defeat the main feature of civil service reform, which is the selection and appointment of persons to office by competitive examination and their continuation during suitability. Indeed, it is only a proper supplementary provision; for, since the appointing power through this system has presumably been removed from politics, one of the chief causes of the abuse of the power to dismiss, the dropping of workers in order to appoint political friends, has been eliminated.

It would thus be advisable in Springfield to permit removal by a department head after he had given the employe an opportunity to explain charges which had been made in writing. No trial or legal review of the decision should be required or allowed. Enough publicity would ordinarily attend such removals to enable the public, in case the plan should be abused, to hold the department head responsible at the next election—a final recourse which is at the bottom of the theory of commission govern-

\* The case of policemen and firemen is slightly different from that of most other city employes in that their work is specialized along lines in which there is very little commercial call for service. It might be advisable to give them the protection afforded by a trial, but this should be held by the department head and should be without review, and not, as is the case now with firemen, after being passed upon by the commission and reviewed by a court. Discipline in these departments is of the utmost importance and the protection of the employe must not be permitted to weaken it. It is sufficient if a trial is provided which gives more publicity to the issues than does the method of removal already suggested for other employes.

## THE SPRINGFIELD SURVEY

ment. If, however, the public is too thoroughly wedded to the trial procedure now in vogue to abandon it completely, at least the trial or review should be conducted by the department head rather than by the civil service commission.

### CENTRALIZATION OF CITY GOVERNMENT

Local government by means of numerous bodies largely independent of each other is directly opposed to the present tendency toward centralization. Although the idea of centralization of power appears to be a modern one, as a matter of fact it was one of the earliest to be acted upon in developing local governments, city and county, in America.

During a long middle period of our history, city government in many instances took form in numerous independent bodies, but the pendulum has of late clearly swung in the earlier direction. No doubt this has been caused by a recognition of the too-great division of responsibility under decentralization and the inability of citizens to hold officials accountable. An instance of such a division of responsibilities carried to extreme was found a few years ago in New Haven, Connecticut, where, besides the regular mayor and council, a considerable number of appointive commissions to perform definite functions had been named. The plan apparently worked well until the number of commissions grew to twenty and matters became so complicated that the people demanded a centralized form of government.

The situation in Springfield, through the creation of numerous public boards and commissions which have separate powers, is becoming similarly complex. Besides the municipal commission itself, there is the board of education, the park board, the city cemetery board, and the library commission—all of which are in addition to separate township and county government bodies operating in the city. To increase the confusion the legislature has fixed by law certain figures beyond which local taxes cannot be levied. For example, the tax limit for general city purposes was fixed at \$1.20 for each \$100 of assessed valuation; the school tax limit for educational purposes, at \$1.50 per \$100 of assessed property valuation, and \$1.50 for building purposes; the library limit, at 12 cents; the park board limit, at 72 cents; the road and

## CITY AND COUNTY ADMINISTRATION

bridge tax limit, at 36 cents; and the limit for refuse-collection and disposal, at 2 cents.

Moreover, certain other revenues were given also by the legislature to special funds and purposes; for example, 50 per cent of the tax on foreign insurance companies, to the city fire department; 4 per cent of the revenue from retail liquor licenses and 3 per cent of that from general licenses, to the police pension fund; 1 per cent of the income from retail liquor licenses and 1 per cent of the sum from general licenses, to the fire-pension fund; and so on. Obviously these revenues fluctuate from year to year, and the particular fund may at times be too large, or too small, unless it is supplemented by money from the general budget given on the basis of local and present needs.

These laws very probably were drawn by legislators who knew little about city administration today, and who were trading political favors to one group of persons to get their support for something else. At any rate such legal provisions have no foundation in public administration of today. They make against any general co-ordinated plan of city government or city improvement, based on a general budget, which would cover the needs of the whole city and be apportioned by a central body capable of comparing and measuring such needs.

### ONE BUDGET FOR ALL CITY PURPOSES NEEDED

Thus, judged by experience elsewhere, this whole Springfield plan appears clearly to be unwise. A department of public schools and a department of public health are two important needs of the community, and their cost should be evaluated under a general financial program if the tax payer is to get the best results. No city would expect to levy separate taxes for health, for fire or police protection, for street-cleaning, building-inspection, or for the city jail without considering their needs in connection with all other city needs. Yet in principle this is exactly what is being done in Springfield, and the result bids fair to be the same here as elsewhere; namely, that the tax payer suffers when too many specialists who naturally regard their own causes first are given free rein, even within limits set by the legislature. One motive in distributing the control and support of these func-

## THE SPRINGFIELD SURVEY

tions undoubtedly was to take them out of politics; but it cannot be said to have had that effect in Springfield.

Moreover to restrict tax levies for special purposes by law is, when results are considered, even more illogical and expensive than to finance government departments independently of each other; for the legislature is thus permitted to fix by guess a program which should instead be based on an intelligent understanding of local community needs; and their guess is made for the whole state and for several years in advance. Thus certain city needs—pavement-repairs and dirt-road maintenance, to cite specific cases—were, when this investigation was made, being neglected because the city rate for these was restricted, while funds for park work were about \$25,000 in excess of what members of the board had intended to ask for.

Again, while the law fixed the limits too high for the needs of the park board, and for the school building fund also, it apparently made the rate for county purposes too low; for in 1913, by observing the limitations set by the legislature, there was a deficit of \$35,000 in the total needed to cover county expenses. Although the county situation has been improved by a recent amendment in the law, the need of abolishing separate levies and fixed limits to their amounts, already pointed out, has not been taken care of. Still further, a change in the proportion of valuations assessed for taxation in Springfield in 1915 made the highest possible tax rate for general city purposes entirely too low. Indeed, it was too low before this change.\*

New York City has been driven by necessity to unite and coordinate its tax and budget functions under one board of estimate and apportionment, which has a special staff continuously studying the entire city needs and preparing evaluated programs. Something similar, on a smaller scale, would give Springfield vastly better returns for money spent. The plan would provide one budget-determining and tax-assessing body for all city purposes, including schools, jails, parks and boulevards, libraries, poor-relief, city special assessments, and the remainder. Under the

\* For further discussion on the point of assessed valuations for tax purposes see pages 97-111.

## CITY AND COUNTY ADMINISTRATION

system now in operation the city commission would be the logical body to perform this function.

We would even go further and urge one central budget body to apportion all county, township, city, school, and park-district budgets and tax rates. The public services of county, township (Springfield and the township in which it is situated, Capital, are co-extensive), and city are so interrelated that more evenly-balanced handling would be insured if they were under the control of a single body. In doing this, care should be taken to provide a capable budget-making body. Ohio, for example, not long ago adopted this general budget-making plan, but neglected to equip its budget-making body for any scientific study of budget needs. As a result the plan has not been a success. In New York City, where provision for careful budget-studies was made, the plan has been working well.

### BUDGET OF THE CITY OF SPRINGFIELD

But until this is done, until the various governing boards are brought together, and even afterwards, it will be desirable for the different government divisions carefully to prepare in advance their estimates of public needs for the year ahead. This applies particularly to the present city government—with which this survey report in large part deals.

Since a budget is a program for the year expressed in financial terms, in terms of the probable cost of the service to be provided, it is obviously a preliminary to intelligent public action, and a safeguard against deficit such as Sangamon County, as already indicated, experienced in 1913.

The central city government in Springfield, that is, the government responsible to the city commission, unlike that of the county, had at the time of this investigation a better budget than is usual in cities of its size and character, well arranged and, except for certain inequalities, in general carefully followed. Only a few points at which suggestions might be offered were noted. One of these was that the total figures for the budget were about twice as large as expenditures were likely to be. This created some confusion. The difficulty lay in the state laws which prohibited the making of any new appropriation dur-

## THE SPRINGFIELD SURVEY

ing the year or the changing of any already made. They did not, however, prevent the making of a number of contingent appropriations, thus producing a total which was excessive in amount. For example, if two or three bridges were needed and there was a possibility of building one, but no decision as to which, the commission, even when members were sure that only one bridge could be built, followed the practice of making an appropriation for the three of, say, \$15,000 for each. Until it could be decided which would be built, this was the only way to insure that even one could be constructed. The method thus would "pad" the budget some \$30,000, perhaps \$45,000, for in the end no bridge might be built.

Fortunately these extra or contingent appropriations were made mostly for special construction work and the budgets of the different departments remained rather accurate, embodying a fairly definite outline of work planned.

The Illinois laws relating to city budgets are entirely too strict, and as a consequence produce results that are not strict enough. This seeming contradiction is due to the fact that no provision is made for applying unused appropriations given for one purpose to other inadequately-supported needs, a leeway which should be allowed on a four-fifths or unanimous vote of the council, providing the grand total of the budget is not increased. In the absence of such a provision, the budget usually asked for from \$700,000 to \$800,000 when it was known beforehand that only about \$450,000 would be spent. Administrative officials were thus left without a current guide for their total expenditures.

A good way to meet the situation would be to pass an official budget ordinance, carrying a total twice as large as the probable requirements of departments and including all the items for which money might be needed during the year—a budget in fact not very different from the one now passed. An informal working-budget exactly totaling the estimated needs and revenues should be agreed upon, and upon this informal budget the administration of the year should be based.

## CITY AND COUNTY ADMINISTRATION

### CLASSIFICATION OF THE BUDGET

Modern city budgets have been developing along uniform lines of classification. Should Springfield change its present budget, it would be advisable for officials to examine some of the latest budget forms and adopt standardized classifications. Good examples of forms are used in both Dayton and New York, where the groupings of items are so arranged that it is possible to sum up the total postage expenditures, for example, in every department in the city. This is done by attaching to the item of postage, for no matter what department, a distinguishing code letter or number. The figures may thus easily be identified and taken off on an adding machine. Such a system of grouping by themselves the figures for various kinds of supplies or objects for whatever department so that they can be identified and the total for the whole city ascertained has been found of considerable advantage and particularly instructive in making comparisons with other cities.\*

### MONTHLY REPORT ON BUDGET

In a monthly report on the status of budget-appropriations the city comptroller of Springfield gives the city commission a statement showing the following data under five separate columns:

1. Amount of appropriation
2. Expenses vouchered during the month
3. Expenses vouchered to date during the year
4. Balance left in the appropriation
5. Orders outstanding (estimated)

A sixth column should be added termed "Unencumbered balance of appropriations," since without it, to know the final figure usually desired, the outstanding obligations must be deducted from the balance left in the appropriation. Such a monthly report is found in comparatively few cities. Its use should be universal. Springfield is to be congratulated upon being one of the first cities that adopted this step.

\* For detailed suggestions on approved methods of budget formulation, see Appendix A, page 149; for further discussion of the purposes and requisites of budgets, see pages 135-140, where the subject is considered in connection with the administration of Sangamon County, which has no real budget. The use of code letters and numbers is also illustrated on the latter pages.

## THE SPRINGFIELD SURVEY

### CENTRALIZATION AND EXPERT ADVICE

Springfield possessed expert knowledge and experience among its public officials which it was not using fully. The comptroller's experience, for example, should have been taken advantage of in the bookkeeping of every department and he should be responsible for the installation of all accounting and financial systems. That is his function and his specialty and he should have expert assistance when needed. He should be continuously available also for advising the departments; for his office is properly more than merely a bookkeeping center. It should be charged with systematizing the records of all the city work.

Similarly the experience of the engineer's department should have been more generally utilized. The department should even be strengthened with this end in view. And if, as has been recommended, the bodies now having independent powers should be correlated or combined with the city government, the engineering department would handle, too, the construction work of the present park board, and the city law department the legal work of the park board, of the school board, and of all other local government bodies, which would obviously be a saving of tax payers' money.

Such a plan would correct another weakness in the city administration of Springfield, namely, the lack of full information; and it would make available to the commission needed data concerning matters upon which they are required to act. Cost-accounting, better budget-preparation, the use of the comptroller's office to organize accounting and financial systems and to supply statistical aid for each department, would much improve the situation. Being thus in a better position than any other city official to know the financial details of each department, the comptroller would be given a chance to put his best facilities at the service of the commission. Of course his suggestions would be only advisory, but they would often be a great assistance to intelligent action on the part of the commission. Even then there will be all too little information on many questions which will arise.

City-government is a specialized field requiring both wide and



## CITY AND COUNTY ADMINISTRATION

technical information of many kinds. Much of this the busy official must pick up as best he can. He has no time, and often little incentive, to become an expert on a variety of subjects or, for the matter of that, on a particular one, especially since his new attainments are often of relatively little use after he leaves office. At the commission meetings, many matters must be expeditiously disposed of. The plan proposed is thus only a very natural as well as a necessary step to a wider distribution of the specialized knowledge and experience in the city offices to all divisions of the local government.\*

### SERVICE AND COST RECORDS

Moreover, the available data should be increased by the installation of service and cost records—a system of record-keeping that will put the cost of work done and the amount of service rendered into comparable units for use locally and elsewhere. Aside from the water works department and the city lighting plant, there were no cost data reckoned by any city department in Springfield; and no department kept service records.†

It is related of an Eastern manufacturer who was making two kinds of products that after a time he found his profits were decreasing. One product was his old standard line and he was sure it was paying; the other was a new venture about which he had doubts. He installed cost-accounting and was astonished to

\* A few minor suggestions, drawn from experience elsewhere, might not be out of place: (1) many cities in order to keep their government fully informed on the best public policy, employ a man trained in municipal affairs as the mayor's secretary; (2) when a question of importance is to come before the commission or a commissioner, much may sometimes be gained if some assistant is asked to study the matter at the local libraries and to report briefly what he has found; (3) surveys or reports on the subject from other cities or upon topics related to city-administration, should be carefully gone through by some city officer; (4) the aid of specialists on the faculty of the state university could be asked more frequently; (5) publications of state or national governments, on the particular question at issue, should be used more often, bibliographies of which can be requested from city or special or state libraries; (6) suggestions from citizens and employees should be encouraged; (7) departmental conferences should be frequent; (8) the city should start a small library for city use, providing especially the current numbers of the more important municipal periodicals.

† In 1916 a very complete system of cost data was installed in the water department.

## THE SPRINGFIELD SURVEY

find that his new article alone was making him money. His system now tells each month what his costs are.

Cities are now being urged to adopt the same system. New York City, aided by cost data prepared by Benjamin Welton, recently reduced by 75 per cent the expense of removing refuse from catch basins. A New Jersey county recently found through cost-reckoning that the money spent in repairing certain pavements for two years would have entirely rebuilt them.

The cost data need not be elaborately worked out although to have them so usually proves an economy; but a moderate amount of cost-calculation is a necessity. It is particularly needed in street and sewer work. For example, in repair jobs, the calculations should show the cost of each job based on the square yard or on some other unit; in street cleaning, the cost based on each street or on a definite number of blocks; in refuse-disposal, the cost per ton destroyed; and so on. The system should be installed by the city comptroller.

Further, each employe, from mayor and commissioners down, should prepare time records showing: (a) hour of arrival at, and departure from, his office, the time out for luncheon, and other absences; (b) how the time was spent while at work, the record being classified by subjects or kinds of work.\* Such records are one part of a cost system. They give a basis on which to estimate service and efficiency that would be useful in tests for civil service promotion. They automatically spur even the conscientious employe to the careful use of time and dig a pit for the loafer. Such systems, where each employe from the highest paid executive down to the office boy makes out a record showing how his time has been spent, are not theoretical; they are in actual operation in many places.

Because of limited time this survey could not include tests as to the efficiency of work done. In any event no cost data for making comparisons were available. In general, however, it was observed that both county and city officials and employes were of average efficiency. In a number of cases the grade of service was without doubt as high as is found in the ordinary well-

\* The Springfield water department for several years has been using a time clock.

## CITY AND COUNTY ADMINISTRATION

run private business, while in other cases little in the way of actual results was being accomplished. Lack of time made it impossible to obtain satisfactory proof of these cases; it is probable, too, that they were not the only ones of the kind.

The remedy for such inefficiency as a rule is not to search out and dismiss the persons concerned; their successors may be worse, and the public will often lay such dismissal to ulterior motives; nor should the superior officer depend alone on his impressions of efficiency. The remedy lies rather in the establishing by proper service records of standards which themselves can be improved. There appears to be no good reason why a dollar's worth of time should not accomplish as much for the city as it is expected to do in any other kind of service.

When such records of efficiency are available, a more intensive study of opportunities for improved service should be made. It will then be possible to go into more detail than is the case here, where only the larger and more obvious savings by the new methods advocated can be pointed out: such, for example, as transferring the inspection of gas and meters to the state; as recommended on page 65; the adoption of a more modern method of making city purchases; the general centralization of work; and so on.

## CITY ACCOUNTING-SYSTEM AND AUDIT

Springfield's accounting system preceded its commission government, and as developed at present deserves great commendation. Its books were found to be in good condition; the accounting methods followed were above the average; and its practice of having an annual audit was especially to be recommended, although the facts shown by the audit should receive more publicity. Letting out the audit by competitive bid, however, is not a good practice. The price paid, moreover, was not sufficient to enable the necessary checking-back of accounts to be done properly. The best results could not be expected any more than if one should choose his family physician by competitive bidding and should take the lowest bidder. The annual audit is too important to run the risk of a superficial examination of details.

And the results were not good, for serious errors were found in

## THE SPRINGFIELD SURVEY

the auditor's report for the year ending February 28, 1914, the last year before our investigation.\* For example, the surplus in the operation account of that year was given as \$13,563.35, whereas it should have been \$45,000 more than that, since no account was taken of the revenues derived from the sale of the bonds issued in connection with a local race riot although the payment by the city of the riot judgments lodged against it was charged as an expense. While the error caused no financial loss, it nevertheless lessened confidence in the rest of the audit. Again, on the first page of the audit it was stated that the per cent of increase in city revenues in 1914 over those of the preceding year was "partly due to the additional assessment for the retirement of riot bonds and for streets and bridges." The fact was that the city revenues had been increased by only \$2,631.16 in order to meet the city's obligations in connection with the riot bonds, and this sum was raised to pay the interest on them and not to provide for their retirement. As a matter of fact the greater part of the revenue increase had been due to a new tax called the street-and-bridge tax. Obviously a more careful audit should be secured.

### MONTHLY RECEIPTS AND EXPENSES

The local commission-government law requires the publication of a monthly summary of the proceedings of the council and a detailed statement of all receipts and expenditures; and this is complied with. These reports show most of the city liabilities, namely, debts contracted but not paid, but they do not show all. Nor are the revenues due during the month but not paid completely shown. The provisions of the charter require only that money received be shown; and *receipts* are not the same as *revenues*, which include money due but unpaid. From the standpoint of accuracy, this omission is a weakness; although from an examination of the system as a whole the defect does not appear to be serious.

\* The auditor's report for the year 1915 has been the subject of severe criticism by the city commission and the bill for it remained unpaid for a long time.

## CITY AND COUNTY ADMINISTRATION

### INVENTORY OF PROPERTY AND EQUIPMENT

Up to the time of the survey, no inventories of city property and equipment had been compiled annually nor kept up to date, although a commendable beginning along this line was soon afterward made. Such a listing should be further developed, and should include from each official or employe, quarterly or at least annually, a schedule of all equipment (and certain staple supplies) under his control; it should show stock (goods or supplies) on hand at the beginning of the period and its condition; what had been received or purchased, what disposed of, and what remained at the end of period, its condition, etc. Prices paid for supplies and estimated values of those remaining should also be given. Department records of this kind would make it possible to compile a general inventory for all the city. Then, by segregating in the budget the items for the purchase of lands, structures, and equipment, these can be readily and intelligently controlled, as should be the case. Depreciation and obsolescence can be estimated on each class of property and after taking into account the previous values and later expenditures an inventory of property and equipment could be kept up to date.

### CITY PURCHASING

The charter requirements for city purchasing are excellent. The theory is that all purchases are to be made by the commissioner of accounts and finance. In practice he often simply approves the order of purchase as made out by some other city officer.\* This comes about for the very practical reason that today the official of a city department requiring and using the same kinds of supplies month by month is usually more familiar with what he wants, what it can be bought for, and the merits of the articles offered by different vendors than is the commissioner of accounts and finance.

A solution appears fairly simple. The commissioner of accounts and finance should increase his information on the articles

\* In 1916, when a supplementary inquiry was made in Springfield by members of the survey, there was but little change toward a more modern purchasing procedure.

## THE SPRINGFIELD SURVEY

probably needed by the city, keep service and cost records of all prior purchases on card indexes, and keep complete current price lists. Then his data and those of the city official specially concerned should be combined in purchasing, the final decision resting with the commissioner of accounts and finance, upon whom it is placed by law. The commissioner might also very wisely take more initiative in the annual purchasing contracts for the various departments, which should be let after competition based upon standard specifications.

A brief examination of the record of the drug supplies of the Springfield city jail in 1914 showed that few of the items were adequately described and that of only a few were the quantities fully stated. Prices alone were given. It is not reasonable to suppose that the commissioner of accounts and finance was personally acquainted with the character and quantity of each item as delivered, which would be expected where records were so poor. These showed careless treatment by every one concerned, from listing of items to their auditing.

Considerable saving in the total purchasing power of the city could undoubtedly be effected by following the procedure used in municipalities that have adopted a modern city purchasing-bureau.\* Of course, economy in purchasing should not be the only consideration to be taken into account. An efficient purchasing bureau should provide such a routine as will allow for the most economical purchase of supplies and materials of the kinds that those with the greatest familiarity with the needs approve, and at the times when the supplies are needed most.

\* Examination of the methods used in the purchasing bureau of the city of Cincinnati is suggested; also, the experience and methods of the central purchasing committee of the city of Milwaukee—a committee made up of the mayor, the commissioner of public works, the secretary of the school board, the secretary of the park board, the public librarian, and the director of the museum. The committee is a volunteer association of representatives of administrative boards and departments. A bill has lately been introduced in the Wisconsin legislature to make it an official body. The Milwaukee citizens' Bureau of Municipal Efficiency estimates that the adoption of the law establishing centralized authority and buying will save the city about \$200,000 annually.

## CITY AND COUNTY ADMINISTRATION

### PAYMENT OF CLAIMS

Springfield in paying claims against it has not profited much from recent advances in business methods; to state the matter bluntly, its procedure is decidedly unbusiness-like. If a commercial firm owes you a bill, it mails you its check in payment after examining the statement of the account you have rendered. The firm does not ask you to swear to the bill, for it depends upon its own knowledge as to the accuracy of the statement rendered. Besides, who has ever heard of a conviction secured—at any rate we have not—for swearing to an excessive claim?

If, on the other hand, the city of Springfield owes you for goods or services, you are obliged (1) to swear before a notary to the claim, (2) to wait one week for its audit, (3) to go to the city hall for your warrant, (4) to receipt the bill before you receive the warrant, and (5) to exchange the warrant for a city check. And if the money for which your check calls is not ready when you first go, then you go again!

Why the difference? No one knows. Its wearisome custom of paying is certainly of no benefit to the city and is a decided nuisance to the person selling goods or services to it. We venture to say that not one cent was ever saved Springfield by compelling the creditor to swear to his bill, or to sign a receipt at the city hall. The better way, and the one being generally adopted elsewhere, consists of the following steps:

1. Claims are certified to, but not sworn to. The commissioner of accounts and finance and the comptroller should know whether the claims are correct.
2. The comptroller prepares a list of vouchers ordered paid. This list when properly signed and presented to the treasurer is itself a warrant.
3. The treasurer prepares and mails voucher checks to creditors, which themselves constitute receipts for the individual claims.

Pay-roll payments in Springfield were being made by individual check drawn to the employee. The system has its advantages and seemed to be working satisfactorily. A method which, for the payment of day labor at least, has worked still better in some

## THE SPRINGFIELD SURVEY

places, in that it reduces office work and obviates the difficulty met by day laborers in getting their checks cashed out of banking hours, is for each foreman to pay by cash, the men receipting for the money by signing on the pay roll. In a city of Springfield's size, each man in signing would see the amount his fellow workmen were receiving—which is one of the best checks against padded pay rolls.

In contrast to the oversafeguarded method of paying claims against the city for goods purchased, the system of approving bills rendered was particularly deficient. It did not provide that some one who knew whether the services were rendered or the goods delivered should certify to that effect upon the claims prior to their audit. Unless the department head is personally acquainted with the facts, he should approve the bill only after such certification. The person with the specific knowledge should certify to the delivery and condition of goods received and to the time and service of day laborers, etc. The pay rolls were particularly faulty in these respects, since in most cases they were not signed by any one who actually knew the above facts.

### CENTRAL INFORMATION AND COMPLAINT BUREAU

Requests for information about and complaints registered against city service were being handled in the various departments and bureaus. Much detailed work would be saved officials if some plan of receiving all such complaints and requests could be brought together, say at the clerk's office. He already is custodian of general city papers, and as secretary of the commission is in general touch with many of the affairs of the city. His office filing system, moreover, was found to be well planned and adequate, and the routine well carried out.

Complaints should be noted on cards, the information obtained, and answers sent promptly by phone or letter. A follow-up system of placing a metal tab on each card, thus automatically bringing it later on to the attention of the person in charge, would make possible an inquiry to see whether the complaint had been attended to. This kind of checking-up would do much to insure prompt service; incidentally, it would result in a belief among citizens that their complaints were receiving proper attention;



## CITY AND COUNTY ADMINISTRATION

and it would be of value in building up a feeling of general satisfaction in the way city matters were being conducted. Neither would an elaborate telephone system be necessary to handle complaints or inquiries. By listing all city offices under one head in the telephone book and by calling the attention of the public to the fact that all communications in the nature of complaints must come through this central bureau, people would soon become accustomed to the procedure. An interdepartment telephone service in this connection would of course be desirable—indeed, necessary; and whether such a bureau is established or not such a telephone system should be installed.

Further, as a matter independent of the establishment of such a bureau, better fire protection for the records of the city clerk was needed. Practically all of these records were important, and would entail great inconvenience, and possibly financial loss, if they were destroyed. At the time of the survey investigation only part were adequately protected from fire. Since that period the vault in which they are kept has been emptied of old records of little value, and the space used for the more important ones; but the danger of loss is not yet entirely removed.

### REPORTS AND PUBLICITY

The growing demand of citizens for the essential facts about all public activities cannot be longer disregarded nor its meaning mistaken. We want to be informed, before we vote, upon the questions upon which we must make decisions. Moreover, we are beginning to scrutinize the sources of our information more and more; we want the facts as much as possible from non-partisan sources. Besides, there is no way of holding public officials responsible for their acts—no way of comparing a pre-election promise with a post-election fulfillment—unless the public has all the data for intelligent judgment. Knowledge based on the right kind of publicity is essential to real government by the people, and its necessity cannot be overemphasized—particularly in a commission-governed city, since one of the chief purposes of commission government is the centralization of duties and powers to such an extent that officials can be held responsible. And the plea of economy on the cost of printing reports cannot be

## THE SPRINGFIELD SURVEY

accepted, for it is obviously short sighted to spend thousands of dollars in elections and then in order to save a few hundred dollars fail to give voters the information they need to make the best decisions.

The first prerequisite for full reporting to the public on public affairs is an adequate accounting system. In the main Springfield has this; a needed development in the system, however, is such record-keeping as will show comparative costs of undertakings and the results obtained.\*

After proper account-keeping, it is necessary to cast the figures up in such a way and to so summarize results that the main facts will be plain to the ordinary citizen. A further requisite, as already indicated, is to put them into print and give them such other publicity as will insure them the attention of the public.

The Springfield city government has failed to put such facts fully before citizens. There is no general report on all departments, and except for the water department, which issues good monthly and annual statements, the departmental reports are so few and so irregular that their usefulness is very slight. The monthly summaries of "Receipts" and "Expenses Vouchered" are not related nor brought together at the end of the year, and therefore tell the layman but little.

The auditor's report of the city would be Greek to most voters, even if they could be persuaded to wade through its detailed schedules. The auditors, or some impartial expert, should prepare a short statement for the public which would give, first, a picture of general financial conditions; second, show comparative tendencies; and third, refer to supporting schedules which would verify conclusions, if more intensive study is desired.

This statement should then be given the widest publicity in the local press, and should be included later in the annual report, which the city is urgently advised to publish. The issuing of quarterly reports, so arranged as to be comparable with other quarters and other years, would be another good practice.

\* See pages 23-25.

## CITY AND COUNTY ADMINISTRATION

### SUMMARY

Springfield adopted commission government in 1911, when only about 30 American cities had taken similar action. The commission is composed of the mayor, the commissioner of public health and safety, the commissioner of public property, the commissioner of streets and public improvements, and the commissioner of accounts and finances.

Several other public boards or commissions, with independent powers and (in most cases) financed by their own tax levies, namely, the board of education, the park board, the library board, and the city cemetery board, furnish public service in the city.

In the city commission, only the mayor is elected to specific duties. The election of commissioners to perform predetermined functions is recommended: first, in order better to separate and clarify confused election issues; and second, to help in electing candidates with special qualifications for the particular public office to be filled. Indeed, the city-manager form of government, which has many points in its favor, goes further; it would elect the officers who must formulate programs and perform legislative functions, and would appoint those who are to act primarily as administrators. Springfield, however, has been comparatively fortunate in its election of administrators, and a change to any new form of government does not appear necessary at present.

The short ballot is used, the names of the candidates for the mayoralty and for the four commissionerships only appearing on the ticket.

Commissioners appoint their subordinate department heads. There appears to be no good reason for changing this procedure.

The city has a civil service commission of three members, who each, with an examiner, draw an annual salary of \$1000. The cost of the service rendered by the commission is excessive. The duties of members, except in the case of the examiner, are not more onerous than are those of the unsalaried school board, and should be performed without compensation. The value of the civil service system would be improved by the commission's submitting more names—two or three—when appointments are to be made, and by the keeping of efficiency records.

## THE SPRINGFIELD SURVEY

Removal of civil service employes is now by trial of the civil service commission. With the possible exception of policemen and firemen, better administrative result would be obtained if public employes could be removed by a department head after he had given the employe an opportunity to explain charges made in writing.

In addition to the several unrelated local government boards and commissions, the legislature has fixed certain tax-limits for local purposes, and has stipulated how parts of other revenues shall be distributed in the city. For example, half of the tax on foreign insurance companies goes to the fire department. The plan is thoroughly unwise. The budget for all public purposes in the city, as well as for public service furnished by the township and the county, should be fixed by one body. All revenues should then go into a general fund and the distribution of funds should be made on the basis of a unified program that would take all elements into account. The tax limits for special purposes should be removed, allowing the city and county, which know local needs best, to decide their own tax levies to meet those needs.

But in the mean time the same care as heretofore should be exercised in making the city budget—a budget which, unlike that of the county, is better than that usually found in our municipalities. It should be improved further, however, by a change in the law allowing transfers of items, after the adoption of the budget, on a unanimous or four-fifths vote of the council, providing that the grand total is not increased. Until the law is changed, a budget, something like the one now prepared, carrying extra items, should be adopted and then supplemented by an informal working-budget totaling exactly the amount of the estimated city revenues and the expenditures contemplated. The classification of items included in the budget should be made more nearly standard in form.

The comptroller's monthly reports to the council on the budget are an aid to good administration; the only suggestion regarding them would be to add another item and show as a final figure the unencumbered balance of appropriations.

Springfield is not fully using the expert knowledge of its officials. A greater centralization of functions would correct this;

for example, by having all accounting and bookkeeping systems worked out and supervised by the comptroller, and similarly by using the engineering department of the city in handling engineering problems of all city departments, the park board, and the other local bodies.

Such a centralization would correct one weakness of the city government—the lack of full information on matters coming before the city commission for decision. The employment of cost-accounting, better budget-preparation, and the comptroller as a system-man and statistician for each department will also help overcome the weakness.

Outside the department of public property no cost data were found. The installation of service records and cost records, particularly in constructing, repairing and cleaning streets and sewers, but elsewhere also, is essential to the best administrative work. Time records, also, from the mayor down, should be kept.

Springfield's accounting system is good. Letting the audit by competitive bid, however, is not a good practice. A number of errors in the Springfield audit at the time of the survey showed the need of more careful work.

No inventories of public property and equipment were being compiled annually nor kept up to date, although a beginning was made in the year following the survey. Each official, every quarter or at least annually, should turn in such inventories, and a general inventory for all the city should then be made up annually, thus keeping up to date the public's "capital inventory."

Springfield's charter requirements for city purchasing, in theory at least, are excellent; but the practice has not worked out so well. The commissioner of accounts and finance should familiarize himself with goods likely to be needed, their cost, quality, and so on, and to take more initiative in the annual purchasing contracts. Indeed, to introduce the procedure followed in a modern city purchasing-bureau would undoubtedly effect large savings.

The payment of claims against the city is unnecessarily safeguarded—so much so as to be decidedly cumbersome and unbusiness-like. A simple plan of payment, following modern business practice, is outlined and recommended. On the other

## THE SPRINGFIELD SURVEY

hand, a more careful method of checking up bills before they are approved for payment is also needed.

Complaints and requests for information on city affairs are of sufficient volume and importance to warrant centralized handling instead of their being distributed through the various departments. A bureau of the city government for the purpose—possibly put under the city clerk's direction—is recommended. By specializing in this type of service, the bureau should insure greater promptness in handling requests coming to the city hall than could be given, as is now the case, by the separate departments.

The publicity given to administrative costs, to the programs of the city departments, and to whether they had been honestly and effectively carried out, was not sufficient to make of practical use the existing plan of placing upon public officials definite and distinguishable responsibilities. The monthly reports on finance told the layman but little. The auditor's reports were not published. Except for the water department, this was the case with the reports of most of the departments. Responsibility, the word around which commission government is supposed to center, is a misnomer unless the public is accurately informed; indeed, there can be no intelligent government by the people if the facts of public policy and action are not put before the citizenry.

### III

## COMMUNITY SERVICE THROUGH THE MUNICIPALITY

Much of the work already discussed, the furnishing of service to the community through the agency of the city government, is a means to an end. What, then, of the service itself? How do the departments of the local government through which this service is more directly furnished function?\*

### FIRE DEPARTMENT

Fire losses in America astound Europeans—and not without reason. The annual number of fires in the United States averages about 500,000; and the per capita amount of property destroyed is many times greater here than abroad. Recent figures for 1915 show the total amount of value destroyed to exceed \$150,000,000;† and in addition several thousand people are killed and many thousands more are injured.

Using the insurance recorded by the local fire department as a

\* As was pointed out in the introductory chapter, many features of the public service have already been covered in other reports of the Springfield Survey series; such, for example, as the police department, the department of public health, city prison, etc. Consideration of them here is therefore omitted.

† An article by Wilbur F. Mallalieu, general manager, National Board of Fire Underwriters, in the *American City* of March, 1917, pp. 295-299, presents an illuminating analysis of the causes of fires in the United States and in the different states in 1915. He shows 21 per cent of the fires in 1915 to be strictly preventable; and another 38 per cent partly preventable—in which group he evidently places those fires that were clearly unpreventable, and also those whose causes were not clearly enough described to make it possible to separate the strictly preventable cases from those not preventable, but among which he feels certain there were some fires, a *part* of the total number, that could have been prevented. (Hence the term, "partly preventable.") The causes of fire in the remaining 41 per cent were not known, but some of the fires he thinks were undoubtedly preventable. Among his main conclusions he points out that as a nation we are shockingly lacking in attention to fire losses; that fire departments and water-supply systems in many cases are not up to standard; that chances are too often taken; and that simple precautions are much neglected.

## THE SPRINGFIELD SURVEY

basis, property destroyed in Springfield during the five years prior to 1915 was worth over \$700,000, the annual losses varying from \$94,000 in 1914 to \$313,000 in 1913. The number of fires per year ranged between 272 in 1911, and 336 in 1910. The average loss for each fire, slightly above \$500, was a moderate figure; but the average per capita loss for the five years, \$2.88, was comparatively high. The average annual number of fires, running at about 5.6 for each 1000 people in the city, was also high.\*

Indeed, the loss was greater than the figures quoted, for much was destroyed that did not appear in the insurance records. Such annihilation of values annually should not be passed over lightly; it demands that the public give greater attention to work against fire in the city—particularly since the underwriters' analysis of the causes of fires in Illinois in 1915 showed over 62 per cent to have been either wholly preventable or partly preventable.

### ORGANIZATION AND OPERATION

The fire department is under the general supervision of the commissioner of public health and safety. Executive control within the department is in the hands of the fire marshal or chief, who is appointed by the city commission for a four-year term, and is subject to removal for cause. Under him are an assistant fire marshal and something over 80 men, 77 of whom, including the chief officers, in 1915 were members of the active fire force as captains, engineers, drivers, hosemen, laddermen, and so on. Appointments to the force and promotions are made by the commissioner from lists of eligible candidates certified by the civil service commission after the candidates have been given physical and mental examinations. Similar tests for promotion are made of those holding the next lower rank. Temporary appointments may be made by the commissioner when no eligibles are listed. All new members are on probation for the first six months.

\* An excellent report on fire hazards in Springfield and the city's facilities for fire-protection was issued by the National Board of Fire Underwriters in September, 1915 (Report No. 85). A few of the main facts and conclusions of that report have been included among the findings and recommendations of this division of the Springfield survey. It is urged, however, that the detailed report of the underwriters be given as wide circulation as possible in the city, and that civic and commercial associations, as well as public officials, give it careful study and local publicity.



## CITY AND COUNTY ADMINISTRATION

After 20 years' service, members may be retired on a pension of half pay; dependents in the family of deceased members, as well as totally disabled members, are also pensioned. There is no age limit set, however, for compulsory retirement.

The department force was too small to provide sufficient protection, particularly when it is remembered that the time of members must be so distributed as to provide for continuous duty, including mealtimes, vacations, and days off. Until the force is increased, however, the purchase of more motor-driven apparatus, as indicated below, will help toward the maximum use of the services of the men already available.

The rules of the department were sufficient for most of the needs of the department and the discipline and general administration compared well with that of many other places. Members of the force may be suspended for 30 days or less by the chief or the commissioner, pending action by the civil service commission. The commission may suspend without pay, or impose fines, but cannot dismiss until after a review of the evidence by a court. As already indicated, it would appear possible to improve the service if such trials were held by the department head and were not subject to review.\*

### FIRE ENGINES AND EQUIPMENT

In 1915 the department had five fire engines, six hose reels, two chemical engines, two chiefs' wagons, two ladder trucks, one hose wagon, and one full wagon. Three of these—an engine, hose wagon, and one of the chiefs' wagons—were motor driven. An additional piece of motor-driven apparatus has been purchased since 1915. The others were drawn by the 28 horses owned by the department.

In the first summary of this report presented in the Springfield Survey Exhibition it was recommended that as rapidly as possible this apparatus should be replaced by auto apparatus. In the April election of the present year the city commission submitted to the voters of Springfield the question of issuing \$50,000 of city bonds for the purpose of completely motorizing

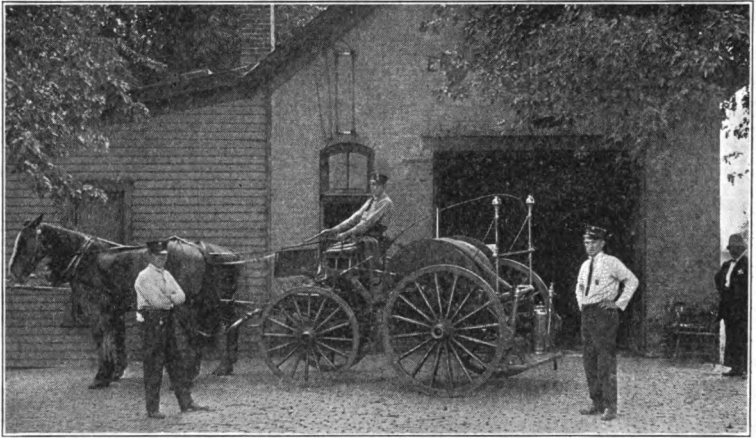
\* See pages 14-16.

## THE SPRINGFIELD SURVEY

the fire department. The proposition was carried by a safe majority.

This affirmative vote was particularly desirable, because the engines and some of the other equipment of the department were out of date and in poor condition. Such as are still usable can be held in reserve for use in case of a conflagration.

When the new engines are to be purchased, detailed specifica-



### FIRE DEPARTMENT EQUIPMENT

Of the five fire engines, six hose reels, two chemical engines, two ladder trucks, two chief's wagons, and two other wagons owned by the fire department in 1915, only three—an engine, hose wagon, and one of the chief's wagons—were motor driven. Complete replacement of horse equipment by auto apparatus is recommended here and was urged in the early summary of this report presented in the Springfield Survey Exhibition. One piece of motor-driven apparatus has been purchased since 1915, and a bond issue for the purpose of securing other auto apparatus has been voted recently

tions should be made which will take into account the service of the city as a whole, so that it will be no longer true, as at the time of this inquiry, that the suction on one engine, for example, was not like that of any other in the department.

For business nowadays requiring quick locomotion, automobiles have come to be indispensable, and clearly the response to a fire alarm is of this sort. Every minute that can be saved in getting the fire-fighting apparatus to the scene of action is im-

## CITY AND COUNTY ADMINISTRATION

portant. Experience shows that many conflagrations of national importance could have been prevented had the apparatus been a few minutes earlier in arriving. Very often fire autos owned by Springfield at present, starting from the central station, where they are housed, are able to arrive at the fire as soon as the horse-drawn apparatus from the nearer local firehouse.

Experience is showing, moreover, that auto-driven apparatus can be operated more cheaply than that drawn by horses. By



AN ENGINE HOUSE OF THE SPRINGFIELD FIRE DEPARTMENT

Questions of construction and location of new fire stations, and of changes in the location of the old ones, have been subjects of recent discussions, some areas of the city at present being inadequately protected. A thorough study by the fire department of the station-house question with a view to the working out of a station-house plan for the whole city that will take into account both present and future needs as faster moving apparatus is secured is recommended

purchasing an auto-squad wagon—a machine for carrying from four to eight men—the present under-manned condition of the department would be partly relieved since the service of the present force would be available for a wider area from the centers at which the men are stationed.

This new automobile equipment also has a bearing upon the questions of the construction and location of new fire stations, and of changes in the location of the old, all of which have been the subject of recent discussion by citizens and underwriters. The five-minute zone of service for auto-apparatus is two or

## THE SPRINGFIELD SURVEY

more times as large as that for horse-drawn apparatus. Even so, however, the equipment, when entirely motor drawn, will not be more than the city needs, since at present some areas are inadequately protected. Changes in the location of stations may very well wait until the new equipment is installed, unless—and this would be still better—the fire department will immediately have a study made of the station-house question with a view to the drafting and adoption of a plan of station locations for the whole city that will take into account not only present needs but future modifications of these needs as faster-moving apparatus is secured.

The hose couplings of Springfield were not of the national standard size. They were the same as those used in Bloomington and Peoria, but could not be interchanged with those of Decatur, St. Louis, East St. Louis, Chicago, or Jacksonville (Illinois). While there were two couplings in the department for use if Springfield engines were sent to neighboring cities, there were no couplings owned by the department in case engines were sent from outside to Springfield. The provision of couplings which enable the interchange of engines, and the purchase of standard-sized couplings when new hose is bought are recommended.

Smoke helmets had recently been secured, but other minor equipment was needed, as were better maps and charts, which would show water plugs, buildings having special fire hazards, the location of explosives, etc. Searchlights for use in connection with night fires are also recommended.

## FIRE-ALARM SYSTEM

The Springfield fire-alarm system is combined with the police-signaling system, and in equipment, distribution of boxes, and general maintenance is decidedly inadequate. It is not greatly used, since over 95 per cent of the alarms are sent in by private telephone. The last underwriters' report on the system urged the immediate replacing of the present system with a modern fire-alarm telegraph system. The matter is important and demands the careful consideration of the department. In the mean time the bulk of the alarms can continue to come over the telephone. Indeed, whatever the system, a large proportion will always come over the telephones.

## CITY AND COUNTY ADMINISTRATION

Several difficulties in using the telephone to transmit fire alarms are often encountered and need to be dealt with in Springfield. Occasionally, for example, a fire or a storm puts one section of the city out of telephone communication with the remainder. In such cases the company should notify the fire department and the latter should post large placards throughout the section to the effect: "Telephone service in this section disabled. Send fire alarms through alarm box corner of ——— and ——— streets," referring to the nearest box of the present city alarm-system. Another objection is the possible difficulty in finding a telephone at night which may confront the person who wishes to turn in an alarm and who does not have a telephone of his own nor know where one is to be found near by. This difficulty is usually not serious, however, since a shout of "Fire" will generally arouse some telephone subscriber. Permanent signs could also be placed where necessary, showing the location of a few private telephones in all parts of the city.

Again objection is made that there is considerable liability of errors in transmission when alarms are sent in by telephone; and in case of error it is difficult for the fire department to ascertain the telephone from which the alarm was sent and thus get the correct location of the fire; the response of the fire department will thus be delayed. This difficulty could be met, in part at least, by educating the public through the press and in other ways on how to give an alarm so that a quick location of the fire would be insured. Specific instructions to this end should also be printed conspicuously on the front or back covers of the telephone books.

## WATER SUPPLY FOR FIRE

For the ordinary fire the Springfield water supply is adequate; but not for emergencies. In this matter we heartily agree with the opinion of the underwriters. The two lines of pipe, one 15 inches in diameter and the other 24, which now conduct all the water from the pumping station to the city, are laid near together, and in many places over coal mines. If a cave-in or accident should disable one or both pipes, a small fire might easily result in a great disaster. For that reason a new main laid along a

## THE SPRINGFIELD SURVEY

different route is a necessity. This is one of the improvements which the fund of the water department must meet.

While this need is of great moment and should be met as soon as possible, the situation is not so alarming as might at first be supposed. The reservoir at North Grand Avenue and Eleventh Street (within the city limits) has a capacity of 4,500,000 gallons, and could supply water for several hours, a sufficient time to enable any probable breaks in the present mains leading to the pumping plant to be repaired.

The water department must also meet another situation. The large water mains should be joined by cross mains at frequent intervals and numerous gate-valves should be installed. Then if any large main should break no shortage or cut-off of water would follow, since the water could be furnished through other mains via the cross mains. At present many of the cross mains are too small and the gate valves are too few to assure such a constant supply. Springfield should at once begin to correct this difficulty, but because of the expense it would be advisable to spread the work over a considerable period.

For the use of streams direct from the hydrant in fighting fires the ordinary pressures are low. In any event, however, Springfield must be prepared to use pumps on all large fires. Not only is this the safest way; but a reconstruction of old water mains and of the pumping facilities to assure high pressure in any part of the city is impracticable not only from the standpoint of present city finances but because the pipes that carry the water in houses and offices could not stand the pressure, and to get new ones would cost householders too much.\*

### HYDRANTS AND SPRINKLER SYSTEMS

The number of hydrants was too low. In new sections they were placed every 300 feet; but in others they were over 600 feet apart. It would be desirable to have them not over 300 feet

\* The underwriters' report recommended the installation of additional pumps at the pumping station. It is difficult, however, to see why these are needed now. The present main pump will handle all the water department is likely to use, and there are two other pumps in reserve, ready for instant use. Besides, the present mains from the pumping plant and the distributing system are not capable of carrying more than the present capacity of the plant.

## CITY AND COUNTY ADMINISTRATION

apart anywhere in the city. This, however, while a matter for consideration, is not of major importance as compared with some of the other needs.

Less than ten automatic sprinkler systems in buildings were found throughout the city at the time of the survey. Although the local building laws did not require such systems, one would have expected that for their own protection and the consequent reduction in insurance rates landlords, manufacturers, and merchants would have installed them. They are also particularly useful in school buildings, and in others where no night watchman is stationed and where a fire at night might make much headway before being discovered.

### INSTRUCTION OF MEMBERS

The department was weak in provision for the training and drilling of its members. That provided consisted chiefly in the occasional operation of the fire engines and the daily hitching-up of the horses. These should be supplemented by further drills, especially for new members, and by a system of study on subjects relating to the work, including lectures and reading courses. Some building should also be made available for weekly drills, particularly in ladder and rescue work.

These drills should include the following:

|  |                               |
|--|-------------------------------|
| Use of the scaling ladder                | Handling of ladders           |
| Use of the jumping net                   | Resuscitation and first aid   |
| Knotting of ropes                        | Opening locked doors          |
| Emergency repairing of hose              | Use of fire helmets           |
| Use of chemicals                         | Selection of hose and nozzles |
| Use of various couplings and connections | of particular sizes           |

It is essential to have the drill work supervised by a competent instructor. Either he should be employed from outside, or some local man should be selected and sent to other cities to perfect himself in this type of drill instruction. In addition to the drills recommended, daily physical exercise for the members should be provided.

## THE SPRINGFIELD SURVEY

The lectures should include the following subjects:

|   |                      |
|---|----------------------|
| Building-inspection and fire-prevention | Water system         |
| Laws and ordinances on fire             | Personal hygiene     |
| Care of fire apparatus                  | Salvage of property  |
| Combustibles and explosives             | Modern fire-fighting |

An excellent supplement to this technical instruction would be for members of the fire force themselves to give drill lessons once a month to theatre and moving picture employees as to what to do in case of fire.

### RECORDS OF THE DEPARTMENTS

The fire department annually compiles valuable statistics on its work; but very little publicity was being given to them and it was doubtful whether a majority of the commissioners had ever studied those prepared. More attention, both by officials and by the public, to the recorded experience of the department would prove useful. The support and co-operation of the public are essential to the best work against fire, and it is one of the functions of the fire department to keep the public informed and to enlist its interest. In some cities, notably Rochester, New York, and St. Joseph, Missouri, the local commercial associations have co-operated with and supplemented their fire departments by issuing printed matter aimed to spread information on fire-prevention. To obtain the co-operation of the public for fire-protection, extensive publicity should be given on fire problems and methods.

The Springfield chief was found to have no assistance in his clerical work. Clerical and stenographic help should be given and the aid of the comptroller's office in working out record systems as suggested on page 22. With this assistance, the fire department could then improve its present records and office data. For example, reports should be sent in weekly by the captain of each station, showing when the men report in and out, the men entering their own time, and the captain vouching for the accuracy of the record. Sooner or later these data should all be compiled.

The alarm records were fairly good but not complete. For ex-



## CITY AND COUNTY ADMINISTRATION

ample, details as to delays and accidents were insufficient; a record showing who gave the alarm and how it was given was not always made; nor was the apparatus that had been used and its effects definitely shown. Such records are essential to progress in local efficiency; and satisfactory forms which have been found of practical use elsewhere can be easily obtained. When such records have been made, each station should keep its own set and forward duplicates to headquarters.

While verbal directions were given as to the movement of companies to cover territory whose own apparatus had been called away for use at a fire, there was no printed sheet showing regular routes to be taken. There were no written notices of closed streets nor of hydrants out of service, these also being given verbally. Some of these deficiencies doubtless are due in part to the chief's lack of clerical help; and they would be in part corrected by supplying such assistance.

## FIRE-PREVENTION

Fire-prevention has come to be an important function of modern fire-department work in many sections of the country. The fire-fighting forces should not merely set to work *after* something has happened. They should be at work *before* the fire starts. The best fire-fighting clearly is that done before there is a blaze.

Such activity includes frequent inspection of chimneys and flues; of stoves, furnaces, boilers, and their pipes; of the storage of dynamite, powder, fireworks, matches, gasoline, oils, and explosive drugs; of electrical wirings; and of accumulations of inflammable rubbish.

Something of the local need of such inspection service is shown by the fact that the Springfield department had 29 alarms due to chimney fires to answer in March, 1915, and 33 in February, 1916. Notwithstanding the number of these calls, the Springfield fire department had not got very far in prevention work. Inspections of chimneys were made only at long intervals, and little attention was paid to the cleaning up of combustibles in factories and buildings, or to educating owners and occupants in regard to fire dangers. Moreover the laws and ordinances

## THE SPRINGFIELD SURVEY

concerning storage of explosives and inflammables were not strictly enforced. The situation calls for the amendment of the building laws so as to cover modern requirements for safety and construction, for an amplification of regulations as to the handling of inflammable materials, for more frequent inspections, and for fuller enforcement of the regulatory rule.

### FIRE LOSSES AND INSURANCE COSTS

Fire-insurance rates in a city are based not on the amount of money paid out in the past for fires, but upon "fire prospects," upon what experience has shown to be the probabilities of fire under certain city conditions. Companies must also take into account the chance that part of a city may be destroyed by a conflagration. In the case of Springfield this hazard is one of the reasons for the companies' demands for an additional water main to the pumping station.

After examining local conditions from time to time and allowing for special hazards, insurance companies set their rates. That these are reasonably low in Springfield is indicated by the fact that the total premiums collected during several recent years have not covered the insurance money returned to citizens on account of fire losses.\*

The underwriters have already announced that certain improvements in the fire-protection facilities must be made or rates will need to be increased. They have also pointed out additional improvements which would enable the companies to set lower rates than at present. It is clear to those who have been giving the matter thought that the necessary improvements to insure the maintenance of present rates should at least be made. From a financial standpoint it is not so clear that it would pay to make all the improvements demanded by the underwriters before a reduction of rates is granted; for the reduction would benefit practically no section outside of the business district; but the

\* In 1913-1914 the insurance companies paid \$276,000 for fire losses in Springfield, and received only \$220,000 in gross premiums—their overhead expenses on this business being an additional loss. In the previous year gross premiums exceeded losses; but net premiums, after the expenses of getting and handling the business were paid, were undoubtedly less than the amounts paid back to Springfield people because of fire losses.

## CITY AND COUNTY ADMINISTRATION

cost of the required improvements in water mains alone would necessitate a very large expenditure—perhaps \$200,000. This sum would be in addition to an equal amount needed to maintain present rates. But even disregarding the savings effected through reduced insurance rates, there would still be an economical and money justification for making improvements of reasonable nature aimed at better fire protection.

The changes demanded by the underwriters in order to maintain present rates, which include increasing the motor-driven apparatus, installing a new supply main between the pumping station and the city, enlarging the cross connections and increasing their number between the mains, and adopting better fire-prevention methods, are reasonable and vital, and should be accomplished. Other reasonable improvements, whether they reduce insurance rates or not, should also be made as rapidly as possible; for much more is involved than protection against economic loss, important as that may be. With an expenditure of about \$80,000 per year upon its administration, operation, and maintenance, and with the provision of such modern equipment as has proved useful in other cities, Springfield may properly expect its fire department to take an important part in bringing the fire-prevention and fire-fighting methods of the city to a high standard.

## BUREAU OF BUILDINGS

In 1913, following a heavy snowfall, a theatre collapsed in Westchester County, New York. The owner was a large contractor who had constructed the building himself and who appeared to have been willing to take chances. Fortunately the theatre was empty when the accident occurred; for, had it been filled with its usual attendance, many lives would have been lost, to add to the already long list of people killed in public buildings. The disaster emphasized the need of supervision over all construction, whether as to stability, fire risk, or sanitation, and reasonable requirements for comfort and decency.

In Springfield the bureau of buildings is a subdivision of the department of public health and safety, the commissioner of

## THE SPRINGFIELD SURVEY

buildings being appointed by the head of that department and subject to removal at his will. The establishing of this bureau has meant a gain for the city, since it combines in one place all that relates to building construction. The builder can thus go to one office and to one authority to obtain permits and rulings. A further gain would be to appoint the building commissioner from persons certified to by the civil service commission.

Permits are required before the erection, alteration, razing, removal, or repair of any building is begun and for the erection of bill boards. The number of new buildings constructed each year during the five years beginning with 1910 averaged about 450; and the annual value, about \$1,500,000. Thus the volume of work to be handled by the building commissioner alone, for he had no assistants, was considerable.

At the time of our investigation there were no systematic nor continuous fire inspections made by the building department. A general inspection was made January 1 to March 1, but no records were kept nor written orders given to correct conditions, except in unusual cases. Inspections with a view to fire-prevention, and the provision of sufficient light and air and satisfactory housing conditions in general were inadequate. This was due in part to the absence of proper regulatory laws, either state or municipal. The remedy is to be found in the enactment of a housing code setting minimum standards to which all buildings must conform, and in the appointment of sufficient building-inspectors to see that the code is enforced.\*

Cities are finding it important also to exercise control over the types of buildings put up in different districts and neighborhoods. The business foresight of real estate dealers, who invariably place restrictions as to the kinds of buildings permitted in areas being developed by them, has its lessons for the city as a whole. Experience has shown that the erection of factories, tenements, or public garages, for example, in established residential sections reduces the desirability of these areas for residential uses, and brings down land values accordingly. The way out, of course,

\* For further discussion of the local need of a housing code see companion volume, Ihlder, John: *Housing in Springfield, Illinois*. (The Springfield Survey.)

## CITY AND COUNTY ADMINISTRATION

is not to prohibit factories in a city but to plan—or to *zone*, as it is now sometimes called—the city so that no enterprises, however legitimate, will encroach upon the interests of others.

Cities are usually collections of neighborhoods; and, by proper city-planning, territory for residential, mercantile, public, manufacturing, or other purposes can, and should, be restricted to its most desirable use. Such restrictions might be dealt with in Springfield when a new housing code is formulated, or they might very properly be dealt with by the park board or by any other local body interested in city-planning.

## WATER, LIGHT, AND POWER DEPARTMENT

### WATER DEPARTMENT

The Springfield water-supply system is owned by the city and is operated under the general supervision of the commissioner of public property.\* The employees, at the time of the survey, numbered about 25, all of them working under civil service regulations except the department superintendent, who was appointed by the commissioner.

The water works are situated on the south bank of the Sangamon river, about two miles from the northern border of the city and four miles from its center. The water-gathering equipment consists of several old galleries some 26 feet below the surface of the ground and six tubular wells, all adjacent to the river. A direct connection with the river is still maintained for possible emergency needs.†

There are no substations, the water going directly from the water works into the distributing mains. As stated in the section on the fire department, the equipment as far as pumps were concerned was found adequate when all factors of the present situation were taken into account. The need, however, of an-

\* The report of the United States Census Bureau entitled General Statistics of Cities, 1915, shows that in the fiscal year 1914-15 the number of cities of 30,000 inhabitants or over owning, either wholly or in part, and operating their water systems, was 155. This meant an increase of 50 during the preceding eleven years.

† For a further description of the city water system and its needs from a sanitary standpoint, see companion report, Schneider, Jr., Franz: Public Health in Springfield, Illinois, pages 72-81. (The Springfield Survey.)

## THE SPRINGFIELD SURVEY

other trunk main laid along a new route from the pumping station to the city has been pointed out.\*

To cover the cost of the original water works, the city in 1867 issued bonds to the amount of \$467,000. These bonds have been retired; but others have been issued, with the result that the bonded debt of the city was greater when the survey was undertaken than the amount of the bonds issued originally to pay for the water works. There was no record to be found, however, showing exactly what bonds had been retired and what had been reissued on their due-dates. Thus whether the water bonds, or bonds issued to refund them, have ever been actually paid off, could not be ascertained; and for the moment, at least, it is of no particular importance. The more important question is the extent to which the water department has given money to the city government to retire and to pay interest upon water-department bonds, regardless of what the city did with the money thus received.

Again, the records of the water department and of the other departments of the city government, particularly prior to 1890, were deficient; they were in such a condition that it seemed impossible to obtain any accurate information on what part of the present water plant, if any, had been paid for by the tax payers in other ways than through payment of water dues. From material available, however, it appears safe to state that at least \$500,000 of the cost of water equipment, which included the cost of other property, of course, than that of the original works, had been met with city money strictly speaking and that this amount had not been paid back to the city by the water department—in other words, that about \$500,000 of the city debt was due to expenditures for the water-works system. The value of the property is about \$1,000,000. Thus it would appear that the department had paid out of net receipts from water rates about one-half of the cost of the present equipment, or about \$500,000.

## FURTHER EXTENSION OF WATER SYSTEM

As is suggested in the discussion of the fire department, Springfield must make important improvements in its water system.

\* See pages 43-44 where some parts of the water-supply system are considered in connection with the city's fire-fighting equipment.

## CITY AND COUNTY ADMINISTRATION

If certain changes are not made soon, the underwriters are on record that insurance rates will be raised. If still other changes are made, they promise a reduction in rates. Although the changes proposed would affect very few insurance rates outside of the business districts, for the most part they represent much-



### MODERN EQUIPMENT IN THE WATER DEPARTMENT

In order to answer complaints and calls for service with the least amount of delay, the water department in 1915 purchased a motor-driven service wagon—an addition to equipment which has meant greater efficiency

needed improvements, and should be made. The proposed new water-main from the pumping station alone will cost about \$150,000 and is a clear necessity. A fund of 10 per cent of all water revenue was being set aside to obtain moneys to lay this main. Again, probably \$50,000 must sooner or later be expended in replacing mains which with the growth of the city are too small,

## THE SPRINGFIELD SURVEY

and possibly \$100,000 more could be expended to advantage to meet suggestions made by the underwriters. Some of these are costs, however, which it is clear that the whole city should bear; and the necessary funds should be raised either by general taxation or by the issuance of city bonds.

Moreover the water department was facing still other costs. Many new extensions of water mains were being asked for. Each person interested in developing some new section of the city felt that his lots were entitled to water service. Since no one could accurately foresee whether or not the development in a particular section would warrant the installation of mains, and since only a small amount of pipe service could be added each year, the water department was obliged to choose what work it would undertake. Such selection made charges of favoritism and bad judgment continually possible. The alternative was for the city to lay mains in all newly-developed districts as fast as possible and pay the costs.

Such developments usually have been entirely advisable as health measures; but from a business and financial standpoint, have not always been possible during the last few years. Some other cities have found that a very fair way to meet the difficulty has been to install mains in new districts asking for water service upon the payment by each lot-owner of a flat rate of, say, \$15 for each 40-foot lot. Of course this sum would not pay for the construction of the large feed mains, but the cost of those should in any event be made a general charge over all the city.

It is true also that heretofore mains have been laid without any charge to lot-holders by the municipality; but, since it is impossible now to extend the system as rapidly as requested without putting a too-heavy burden upon the consumers of city water, a change from past methods seems warranted. Besides, the plan suggested would not be working present owners who had not counted upon this cost any injustice, for the city would be giving a tangible value-return to them for the payment required. In other words the value of their lots, through having city water service accessible in the street, would be increased by at least the amount that the improvement had cost them. This equitable



## CITY AND COUNTY ADMINISTRATION

method of financing new extensions would reduce present Springfield rates about 20 per cent.\*

### WATER-CONSUMPTION AND METERS

The water department is to be congratulated on its practically complete installation of water meters. Although only 2206 meters were in use on March 1, 1911, by the end of 1914 some 7898 were being used. There were only 50 water connections where meters had not been installed. This very general use of meters was believed to be the chief factor in a reduction of the per capita consumption of water from 125 gallons in 1906 to about 85 gallons in 1915. During the same period the consumption of city water per consumer was reduced from 217 gallons to 123. The detailed figures on water-consumption and meter-installation are given in Table 1. In comparison with the statistics of other cities, the figures on water-consumption will be found to be low.

TABLE 1.—WATER-CONSUMPTION AND METER-INSTALLATION IN SPRINGFIELD, ILLINOIS, FOR EACH OF THE FIVE YEARS ENDING FEBRUARY 28, 1911-1915

| Year ending February 28 | Average daily consumption in gallons | Total population (Census estimate) | Estimated number of persons supplied with water | Gallons supplied |              | Number of        |               |
|-------------------------|--------------------------------------|------------------------------------|---|------------------|--------------|------------------|---------------|
|                         |                                      |                                    |   | Per capita       | Per consumer | Ser-vices in use | Meters in use |
| 1911 .....              | 5,446,000                            | 51,678                             | 25,000  | 105              | 218          | 5,867            | 2,206         |
| 1912 .....              | 5,259,000                            | 53,228                             | 26,000  | 99               | 202          | 6,049            | 4,925         |
| 1913 .....              | 5,054,000                            | 54,824                             | 30,838  | 92               | 164          | 6,424            | 6,502         |
| 1914 .....              | 5,133,000                            | 56,469                             | 31,764  | 91               | 162          | 6,871            | 7,134         |
| 1915 .....              | 4,923,000                            | 57,972                             | 40,000  | 85               | 123          | 7,948            | 7,898         |

Besides correcting the overconsumption per person of water, the Springfield water department has made another improvement: it has instituted a periodic test of the accuracy of water meters.

\* In the first draft of this report it was recommended that the opening and closing of pavements in order to make alterations in the water system, or otherwise, should be done by the street department, and the cost charged to the water department. This work has since been taken over by the street department.

## THE SPRINGFIELD SURVEY

The first general tests made in 1911 and 1912 are said to have shown an average loss to the city of nearly 40 per cent. Meters are now tested biennially, and the loss of water is greatly reduced.

### WATER RATES

The question of rates charged for water service has been the subject of public discussion from time to time in Springfield, and is important. It is not a simple question, however, since a number of different methods are being used throughout the United States in fixing rates; and comparisons between Springfield rates and those charged elsewhere are therefore not particularly significant. Moreover the fairness of a rate must take into account the source of the water supply, the size and ownership of the plant, the quality and treatment of the water, the manner of its distribution, and numerous other conditions—considerations which are not taken into account in a mere comparison of rates. Something, nevertheless, can still be said in favor of rate comparisons: they give at least an indication as to whether the rate in any given place is within the bounds of general practice.

In 1915 the Buffalo Meter Company compiled the water rates charged in 709 American and Canadian cities, its sources of information being the tables of the rate committee of the American Water Works Association, the *Municipal Journal*, the Railroad Commission of Wisconsin, and the Canadian Commission of Conservation. The American cities numbered 640 and the data from these showed that the average of the highest rates per 1000 U. S. gallons was 27 cents and the average of the lowest, 11 cents. In comparison with these figures, Springfield's rates make a very favorable showing.

At the time of the survey the highest rate charged for commercial and domestic uses of water in Springfield was 14 cents per 1000 gallons, while the lowest rate was six cents per 1000 gallons. Recent figures show the local rates to be slightly above the earlier ones, but they still are much below the average of the 640 cities. The more recent figures for the highest Springfield rates are  $16\frac{2}{3}$  cents per 1000 gallons for both domestic and commercial uses; and the lowest,  $6\frac{2}{3}$  cents per 1000 gallons for commercial uses and 11 cents for domestic uses. Thus at only

## CITY AND COUNTY ADMINISTRATION

one point is the Springfield figure as high as the average for 640 American cities; and in that instance the equality of rates is at one of the least important points; for the 11-cent charge applies only in cases where 105,000 gallons of water are used for domestic purposes each quarter-year—an amount reached by only a few consumers. Thus the comparison shows the Springfield rates to be well within the bounds of general practice.

One of the most valid objections urged against municipal ownership of public utilities in general is that the utilities are so often mismanaged that it is cheaper to pay a private individual or company a substantial profit than to lose a greater amount through public inefficiency. Springfield's experience in public ownership of the water supply would invalidate this line of reasoning, since the local water system and its management compared favorably, at the time of the investigation, with similar enterprises privately owned. The Illinois State Water Survey made an official report upon the water works of Springfield in 1913. After tabulating the statistics obtained, Paul Hansen, the engineer, said: "The general indication of these figures is that the city of Springfield has secured a water supply at comparatively low cost for installation, and that the unit costs are moderate and are being gradually reduced year by year."

The examination made in the Springfield survey confirmed his conclusions. Data were being kept showing the cost of (1) operation, (2) fuel used, (3) oil used, (4) waste used, (5) number of gallons pumped, (6) the nature of services on every meter and repair job, and the cost, and (7) a record of the cost of each connection made for supplying water service. In addition, the uniform system of accounting and cost data required by the State Utilities Commission for privately-owned water works has been voluntarily installed subsequently to our study.

### WATER-RATE MAKING

While the rates charged are reasonably low, a few difficulties relating to details still remain to be equitably adjusted. One detail relates to the methods of scheduling the rates. Under the new (1915) rates, opening the water faucet at certain times

## THE SPRINGFIELD SURVEY

will actually save money.\* For example, at the present domestic rates  $11\frac{2}{3}$  cents is charged for each hundred cubic feet of water used during each three months in which 6,999 cubic feet or less are consumed; and 10 cents is charged for each hundred cubic feet where the amount used ranges between 7,000 and 13,999 cubic feet per quarter-year.

Thus in December, 1915, a domestic consumer was charged \$7.50 for using 7,500 cubic feet in the preceding three months, the rate being 10 cents per hundred. In February, 1916, the same consumer paid for 6,900 cubic feet at  $11\frac{2}{3}$  cents, and his bill was \$8.05, or 55 cents more than the preceding quarter, although he used 600 cubic feet less of water.

Again, a domestic consumer who uses 20,996 cubic feet per quarter is charged \$17.50, while a commercial consumer who uses 6,999 per month, or 20,996 per quarter, would pay \$21.

It is true that these instances are rare, but they are significant in indicating certain inconsistencies in the rate schedule. These inconsistencies also prevailed under the old rates and in such cases were due to the whole plan of the rate schedule, and its correction involves a readjustment rather than changes in particular rates. One method of correcting this difference in water

\* In practically all cities the water rates are graduated according to the amounts of water consumed within certain periods. For example, the Springfield rates charged (on the new basis of cubic feet instead of gallons consumed) since July 1, 1915, varied as follows:

### *Domestic Rates*

|  |                                      |
|--|--------------------------------------|
| 2,999 cu. ft. or less per quarter.....   | \$ .12 $\frac{1}{2}$ per 100 cu. ft. |
| 3,000 to 6,999 cu. ft. per quarter.....  | .11 $\frac{2}{3}$ per 100 cu. ft.    |
| 7,000 to 13,999 cu. ft. per quarter..... | .10 per 100 cu. ft.                  |
| Over 14,000 cu. ft. per quarter.....     | .08 $\frac{2}{3}$ per 100 cu. ft.    |
| Minimum charge per quarter.....          | 1.00                                 |

### *Commercial Rates*

|   |                                      |
|---|--------------------------------------|
| 999 cu. ft. or less per month.....      | \$ .12 $\frac{1}{2}$ per 100 cu. ft. |
| 1,000 to 1,999 cu. ft. per month.....   | .11 $\frac{2}{3}$ per 100 cu. ft.    |
| 2,000 to 6,999 cu. ft. per month.....   | .10 per 100 cu. ft.                  |
| 7,000 to 13,999 cu. ft. per month.....  | .08 $\frac{2}{3}$ per 100 cu. ft.    |
| 14,000 to 27,999 cu. ft. per month..... | .07 $\frac{1}{2}$ per 100 cu. ft.    |
| 28,000 to 39,999 cu. ft. per month..... | .06 $\frac{2}{3}$ per 100 cu. ft.    |
| 40,000 to 54,999 cu. ft. per month..... | .05 $\frac{3}{4}$ per 100 cu. ft.    |
| Over 55,000 cu. ft. per month.....      | .05 per 100 cu. ft.                  |
| Minimum charge per month.....           | .50                                  |

Thus in making up the figures for the 640 American cities 27 cents per 1000 gallons was found to be the average of the highest rates charged and 11 cents to be the average of the lowest rates.

## CITY AND COUNTY ADMINISTRATION

costs to citizens, which is gaining considerable acceptance, is to charge a fixed sum of money, determined according to the size of the householder's meter and a certain maximum quantity of water allowed per year. For example, where a five-eighths-inch meter is used the payment of, say, five dollars annually would secure a maximum of 25,000 gallons of water per year; \$10 (a three-fourths-inch meter being used) would secure an annual maximum of 50,000 gallons—the average amount used annually in domestic service; and so on up the scale. All water furnished in excess of the maximum allowed for each different meter size would be charged for at the rate of, say, 15 cents per 1000 gallons. The rates themselves would need to be computed, of course, after a careful study of the cost of supplying the water and the local method of distributing this cost to consumers.

Another method is to charge a certain fixed amount for each connection with the water system, the amount depending on the size of the meter; and then to charge a uniform rate for all water furnished. For example, the fixed charge for a five-eighths-inch-meter connection might be 25 cents per month; for a three-fourths-inch-meter, 40 cents; for an inch-meter, 65 cents; etc. And in addition a straight charge of, say, 10 cents per 1000 gallons would be charged for all water used. It might be desirable, instead of making one rate for all water used in the latter case, to charge two or three rates graduated according to the amounts consumed. One rate is theoretically correct, but at times there appear to be special reasons for varying from it. Again, as in the other method, the exact rates could and should be computed from the very excellent cost data in the hands of the water department and from an operation statement similar to the one now made by the department.

There is a certain "overhead" and operation cost, that is, the cost of furnishing service reading meters, etc., which is in addition to the cost of securing and pumping the water. This cost should be covered, to a large degree if not entirely, by the flat-meter charge suggested in the second method. After that is taken care of there is no good reason why all persons should not pay at the same fixed rate for the water they actually use. This principle is the foundation of all regulation of rates, and

## THE SPRINGFIELD SURVEY

any substantial deviation from it savors of rebating and is particularly obnoxious in municipally-owned utilities.

Finally, the conclusion of the investigators after going over records and activities carefully was that the water department as a whole was being very efficiently managed.\*

### CITY LIGHT PLANT

Since about 1900 Springfield has owned a small electric light plant. For a while it was leased to a private company, but during recent years its operation has been in the hands of the

\* Several recommendations as to details in which the office work of the water department could be improved were made in the earlier drafts of this report. Most of these have received action. One related to the unit of measurement used as a basis for making water rates. Formerly the rates were based upon a certain charge per thousand gallons, although all the meters measured by the cubic foot. This not only made it difficult for most persons to check their water bills against the meter charge, but it entailed a great deal of extra work in the water department and caused some errors. There appeared to be no reason why rates should not be computed on the cubic-foot basis and it was so recommended; the change to this basis has since been made.

At the time of our field work it was also the custom of the department to send a collector out after water rents. This was an expensive way of making collections; it was recommended that the consumer be required to make all payments at the office, in default of which water would be turned off. This method is now followed, the change having been made early in 1916. This suggestion seemed particularly defensible, since the prevailing minimum charges were thought by the survey staff to be too low. The minimum charge for three months' water for domestic consumption was 67 cents, and there were over 1,500 of these minimum charges. As 5,000 gallons of water might be used at this charge, the collection and pumpage costs alone were sufficient to make a minimum consumer a losing proposition. Our recommendation was that a service charge of 75 cents for each three months be assessed, and that all water used be paid for in addition. In 1916 the department raised the minimum rates to one dollar per quarter, and the allowance of water to 6,000 gallons. While this does not go so far as our recommendation, we believe it a step in the right direction.

Further, the consumers' ledger sheets read down the page, the January reading given first, the February reading next, etc. In ascertaining the difference between the two readings, in order to get the net consumption, it was necessary to subtract upside down. It would be simpler to reverse the order on the ledger sheet, making the subtraction in the usual way; and this reversing of order is recommended. It was also the custom to make out the water bills from the consumers' ledger. A better method would appear to be to make use of some of the modern bookkeeping or typewriting machines and to prepare at one time a water bill and a copy, by the same act writing up the consumers' ledger—a change that would effect considerable saving in clerical work.

The water, light, and power departments, as this report goes to press, have just published a very satisfactory annual report covering the year ending February 28, 1917.

## CITY AND COUNTY ADMINISTRATION

city. The service furnished by the plant has been used chiefly for street-lighting and the lighting of public buildings. Within the last few years, however, a beginning has been made in supplying the general public with electric current, and in 1916 some 700 consumers were being supplied.

Some five years ago, the question arose of replacing the out-worn and more or less obsolete plant equipment with something more modern, and the proposal to abandon the old site of the plant and to consolidate with the water-pumping station at the river had been much discussed in the local press and on the local platform. In 1916, the city commission voted to purchase additional equipment and to install it at the water works. This brought on a further and more or less involved contest ending in a referendum vote, which showed the action of the city commission to have the backing of a very large majority of the voters.

In the survey exhibition and in the early draft of this report, the importance of modernizing the equipment of the lighting plant was pointed out. The need of this step was obvious if the city wanted to save on the cost of its light. At that time, according to well-made estimates, current was costing one-third more to produce with the old equipment than it would have cost had improved machinery been used. It was also recommended that the old site be given up and that the plant be transferred to that of the water works, where space had already been provided. The reasons for such action we believed to be sound, and they still hold good.

The feature of economy in this consolidation plan seemed particularly strong. The cost of construction and operation would be reduced and supervision would be facilitated. Moreover further extensions of the lighting plant would sometime be necessary, whether it furnished private service or not, and the facilities provided by the water-pumping station and its surroundings were particularly favorable for these extensions. By making the transfer, too, part of the old electric station would become available for a much-needed city storehouse. In addition, a careful study of the report made by Arthur M. Morgan, a consulting engineer of Chicago, corroborated our conclusion that

## THE SPRINGFIELD SURVEY

such a consolidation of plants would reduce construction and operation expenses.\*

### LIGHT FOR PRIVATE CONSUMERS

Combined with the issue of providing more modern and more economical equipment for producing light has been the question of extending the sale of electricity to private consumers. The municipal rates (fixed by ordinance) charged to those receiving current before the plants were consolidated averaged from 25 to 60 per cent less than the rates of the privately-owned lighting company in the city. The report of the consulting engineer, referred to above, stated that these rates could be maintained easily after the combination in equipment was effected.† More-over for some time the city had been charging the park board about 35 per cent less for current than the price it paid to a private company. If these rates can be maintained consistently, there obviously will be an increased demand for the city service.

The question, then, of extending the service to private consumers narrows down to a matter of management efficiency. If the citizens of Springfield believe that the new lighting plant can be as well managed as the present water-works system, for example, that is sufficient reason for wanting the city plant to furnish private consumers with its surplus current. And the city should build its plant with the idea of producing a surplus current for some time to come. A well-managed municipal utility has inherent economic advantages over one privately owned and its rates should always be lower. It has no expensive friction with the public authorities and the city organi-

\* Mr. Morgan's report, dated January 7, 1914, presented detailed figures showing that the saving to be effected by combining the electric light plant and the water works rather than by remodelling the old lighting plant would be over \$35,000 for installing and altering, and over \$16,000 for operating and maintaining—a total saving of over \$50,000. It appeared to us, also, that about \$1,200 more could be saved annually at the pumping station by the installation of mechanical stokers, an improvement which might not be justified unless the plants were combined.

† The first seven months of operation of the light plant after consolidation with the water works (August 1, 1916, to February 28, 1917) tends to confirm the engineer's opinion, since the light plant, without an increase in rates, showed a net profit of over \$8,300; during the previous five months of the fiscal year the profit was only a little over \$500.



## CITY AND COUNTY ADMINISTRATION

zation reduces overhead costs to some extent. The municipality can also borrow at lower rates of interest than private corporations can and the fact that no profits are made should also help toward lower rates. But if the city does engage in supplying this service, it is axiomatic that all needed current should first be supplied to the city and the school district, and probably to the county, before any current is sold privately.

But, on the other hand, if the citizens do not feel reasonably confident of consistent good handling of the municipal plant, if they fear mismanagement to a degree which would equal or exceed the profits of a private company, then the city should not only refrain from furnishing private current, but should abandon the entire lighting project and should enter into a contract with a private company for public lighting. The recent referendum vote, referred to above, however, would appear at least to be in the nature of a vote of confidence in the present public management.

### LIGHTING DETAILS

In lighting the city it is believed that more satisfactory results from the same expenditure, particularly in the residential districts, can be obtained by installing a number of small lights along the curb or sidewalk rather than by continuing or increasing the number of arc lights. This plan has been worked out satisfactorily in other cities. The principle is simple. The great part of the light from an arc is centered directly under the globe or scattered in the sky. Thus a few very bright spots are made, and many dark ones. Smaller lights tend to prevent these dark spots on the street and do not dazzle drivers; their reflectors are more effective and give better distribution of available light.\* Moreover, the area of ground adequately illuminated from a number of smaller lights is considerably larger than the area from one arc light of the same total power.

The substitution of tungsten lights for carbon incandescents in all city buildings is recommended. It usually reduces the cost of lighting over half.

\* Such a system has subsequently been installed on Adams Street, West Grand Avenue, and South Grand Avenue. It should be extended.

## THE SPRINGFIELD SURVEY

### GAS AND METER INSPECTION

#### DUTIES OF INSPECTOR

Gas in Springfield is furnished by a private company. The city had an excellent equipment for testing gas and gas meters, and was employing an inspector at \$1200 per year to do this work. The inspector was well qualified for his duties.

The method employed was that persons questioning the correctness of their meters should be asked to deposit one dollar. The meter was then brought in and tested. If it was within 2 per cent of being correct, the dollar was retained, 50 cents going to the city as part payment of the service and 50 cents to the gas company. If the meter was not within 2 per cent of being correct, the dollar was returned to the consumer. But *no meters had been brought in for this test during two years*, although the inspector stated that within the last year or so before this period he had made about 20 tests informally and without fee. The revenues of the office during the three years ending February 28, 1916, were \$4.00.

The work of the inspector was thus very largely the testing of newly-installed meters. The gas company is required to test and mark the date on each meter when installed. The city inspector also tests these meters. In the fiscal year 1915-16, he found only six meters out of 2,222 that he tested to be over 2 per cent incorrect.

A local ordinance requires that gas furnished in the city must be of a heating value of 600 British thermal units.\* In 1915-16 it averaged only 580; in no month was the average 600, and at one time it ran as low as 540.

Whether the ordinance is valid as against the later powers given the State Utilities Commission may be questioned. But even the rules of this commission require that public utility companies shall supply the same quality of service that they had supplied before the creation of the commission, at least until

\* The ordinance requires too high a standard for economical production in any event. The gas standard established by the State Utilities Commission is lower and more practicable.

## CITY AND COUNTY ADMINISTRATION

permission is given to lower the quality. The local gas company furnished the state commission a statement showing that the quality had averaged 589.4 British thermal units during the first seven months of 1914, but made no application to reduce the quality. Thus the gas sold in the city was not measuring up to the requirement of the ordinance. And this requirement was later (March, 1916) confirmed by an order of the state commission setting 600 British thermal units as the minimum.

A very serious phase of the whole matter was that no one but the inspector seemed to be aware of the low average of the gas (as compared with the requirements of the ordinance) in its heating qualities; there was no publication of the facts brought together by the inspector's tests. *The least that should be done is to put such information before the city commissioners or the State Utilities Commission promptly* and to point out to these busy men exactly what the figures mean.

No tests of electric meters were made. This service is too important to neglect longer. The inspector has uninstalled equipment with which to make the tests and they should be made if the gas and meter inspection department is to be continued.

The larger and more important question, however, is whether the city should not discontinue this work altogether and let the state assume it. The city, as already pointed out, is making the installation tests of gas meters which the gas company is required to make, and is receiving nothing for the service; and it has failed to draw attention to the violation of the requirements as to the heating value for gas, a failure in one of the main functions of the service.

*It is therefore recommended that the city abandon this testing.* The state, moreover, is ready to do all that seems necessary to protect Springfield consumers of gas and electricity. And for a small sum the work of the state could be periodically checked up by the city if that were desirable, and it probably would be since in this way the city officials could know exactly what is being done. The state makes tests of both gas and electricity (small meters) for two dollars a meter, and, since citizens are having little or none of this work done by the city anyway, the increase from the present fee of one dollar is of no moment.

## THE SPRINGFIELD SURVEY

### BUREAU OF WEIGHTS AND MEASURES

If an ordinary family of five persons were obliged to purchase its weighed commodities at places where the scales were 3 per cent "fast" (i. e., inaccurate by giving short weight to the extent of about one-half ounce in the pound), the family, at the very lowest estimate, would lose from \$4.00 to \$10 a year. If the scales were 10 per cent fast, the loss would be above \$13 a year. Yet scales are often as inaccurate as this, and adequate inspection in most cities costs less than two cents per inhabitant.

Springfield was spending less than one cent per inhabitant—a sum entirely too small to accomplish much. The sealer was receiving for salary and expenses one-half the fees collected from the use of the city scales, amounting to about \$40 per month. He was devoting only part time to the work. His kit of equipment was not furnished by the city, and compared with the standard equipment was incomplete. There was at the same time a set of privately-owned scales in the city licensed to do public weighing and competing with the city scales. The use of these materially reduced the revenue of the latter. The expenses of the sealer and his salary in any event should be taken care of in the budget, since there was sufficient work to warrant a living salary for all-time work.

The records of the sealer indicated that he was doing as good work as the facilities and conditions permitted. But local conditions did not permit an adequate and modernly-conceived control of the situation.

The weights and measures laws and ordinances are not adequate. The state law is so brief that it does practically nothing except to fix the standard weights for a bushel of oats, of potatoes, etc., and to define a few measures to be used. It makes the county clerk sealer of weights and measures for the county.

### STATE BUREAU NEEDED

A state law with adequate state inspection through a state bureau of weights and measures is much needed. This would insure uniformity of requirements in all cities and counties.

## CITY AND COUNTY ADMINISTRATION

Until this is effected Springfield should improve its local organization and effectiveness by adopting the following methods:

1. The constant testing of weights through the purchasing of commodities and the weighing of what was received
2. Forbidding the use or possession of certain brands of scales which lend themselves readily to fraudulent use
3. Distributing pamphlets to housewives which give information on how to secure full weight in purchasing
4. Giving publicity to the work of the inspector and to the convictions obtained. The public should know the record of each dealer.
5. The institution of a special procedure and special rules of evidence in trials for violating the statute or ordinance applying to weights and measures. Under the usual rules of criminal law a conviction is most difficult to obtain even in cases of flagrant violations.

## CITY LAW DEPARTMENT

The first question that occurs to one on examining this department is: why should there be both a city attorney and a corporation counsel? There was no definite division of functions and duties, and the legal department had no head. Rather it had two heads. This condition may be explained historically, but it cannot be defended on any recent theory of efficient administration. One of these offices should be abolished, or left vacant. The city council has power to do either.

If two or more officers are necessary to the department, one should be put at the head; and he should have power to appoint first and second assistants. They should be removable at his will, since the positions are decidedly confidential and the head of the department alone must be held responsible. With the present work of the department one assistant should be sufficient; but additional counsel might be advisable in technical cases.

## CENTRALIZING LEGAL WORK

If, as has already been suggested, the law department could also handle the legal work of the park board and the board of education, each of which had its own legal representative, a

## THE SPRINGFIELD SURVEY

decided saving to the tax payers and a step toward greater efficiency would be effected. In that case a second assistant would be necessary. This step could be taken by agreement and without legislative change. The city of New York handles all legal work through one department and many other cities follow the same plan.

### DEPARTMENT OF STREETS AND PUBLIC IMPROVEMENTS

#### STREET PAVING

In 1914 Springfield had slightly under 161 miles of streets. About 93 miles, or 58 per cent, were unpaved. Of the paved streets, by far the largest proportion were covered with brick. The exact figures as to pavement mileage are shown in Table 2.\*

TABLE 2.—MILEAGE OF PAVED STREETS IN SPRINGFIELD, ILLINOIS, IN THE YEAR 1914

| Kind of pavement                     | Miles |
|--------------------------------------|-------|
| Brick, concrete base.....            | 44.8  |
| Brick, base other than concrete..... | 12.1  |
| Asphalt.....                         | 6.6   |
| Macadam.....                         | 1.5   |
| Asphaltic concrete.....              | 1.4   |
| Mineral rubber.....                  | .8    |
| Dolarway.....                        | .5    |
| Total.....                           | 67.7  |

Many factors must be taken into account in choosing paving materials; such as, the grade of the street, the amount of shade, soil conditions, volume and nature of the traffic, the character of the district and its probable future development, and the use of the street for car tracks. To meet these varying condi-

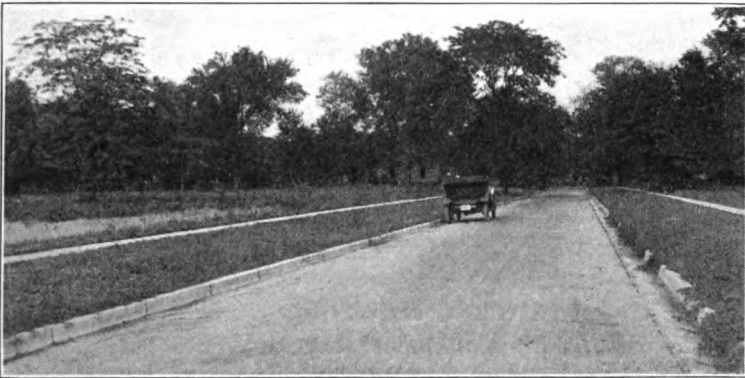
\* The situation was not materially different at the end of 1916. At that time the number of miles of streets in the city had been increased to 166.26; and the unpaved mileage had been reduced to 90.38. The proportion of unimproved streets, considerably over half of all the street mileage, was still high.

## CITY AND COUNTY ADMINISTRATION

tions, pavements differ as to their original cost, their probable life, repair costs, the possibility of proper repair-making, riding surface, cleanliness and the cost of cleaning, noiselessness, and slipperiness. Thus it is obviously impossible to lay down any generally applicable rule as to any one best pavement. What is best under certain conditions may not be best under others. In order to determine what is best for Springfield, a careful study should be made to determine what would most adequately suit district conditions. Such a study would be quite within the province of the city government; or it could be a valuable contribution to the public by some local civic or commercial organization. In the mean time it is not possible to do more than make some general observations on the pavement situation.

### PAVING MATERIALS: BRICK

Brick, which is used so largely in Springfield, is a cheap and serviceable pavement. Up to the time of the survey, all recently-



### WISE ECONOMY IN STREET-MAKING

This roadway on a street in the residence section of Springfield very wisely was made narrower than that usually found in the business districts and in other sections where the traffic is heavy. The room here provided for vehicles is ample, and a saving through a lower original expense for paving and through smaller latter costs for up-keep is effected

laid brick pavements had been asphalt grouted; that is, the spaces between the bricks had been filled with asphalt. A better method, and one now adopted as a standard, is to fill the spaces

## THE SPRINGFIELD SURVEY

with cement. This has the advantage of better protection for the edges of the brick.

For residential districts, brick paving is usually rather noisy and dusty. Moreover when flaws show in individual bricks rather than in large areas, it is impracticable to remove the single bricks to be replaced by others. Moreover bricks may pass the standard tests and yet prove unsuitable for traffic conditions. Pasfield Street, for example, has a brick pavement which was three years old when our field work in 1914 was done. The foundation was of six-inch concrete, at least one inch more than traffic there would seem to demand. Despite this, the bricks at the end of three years were chipping and giving way. Repairs will not correct this; the trouble is too general. The bricks were said to have passed the local tests, yet it seems certain that the pavement will prove to be unsatisfactory in a few years more; and it is already beginning to be rough.

One way of improving the situation might be to resurface this street with sheet asphalt. Such resurfacing is recommended only in cases where the foundation is good and where the grades permit. The practice cannot be followed indiscriminately.

## ASPHALT

The city had nearly seven miles of asphalt paving in 1914; this was increased to a little over eight miles in 1916. Over long periods, well-laid asphalt, promptly repaired, usually shows good results for its cost when appearance and quality are considered and when traffic is not very heavy. South Grand Avenue, a residence street, is asphalt paved and, though it had been used eleven years, was in excellent shape. Walnut Street, from Lawrence Avenue to South Grand, had been paved at an unfavorable season. It was found in bad shape, but had it been promptly and adequately repaired, would have compared favorably with other classes of pavement, despite its original defects.

Ordinarily asphalt does not give good results under the following conditions: (a) where traffic is heavy; (b) where traffic is very light, for it loses its "life" if not used; or (c) where moisture is constant, as under heavy shade trees. On the other hand, it is easily repaired when proper means are at hand, while brick

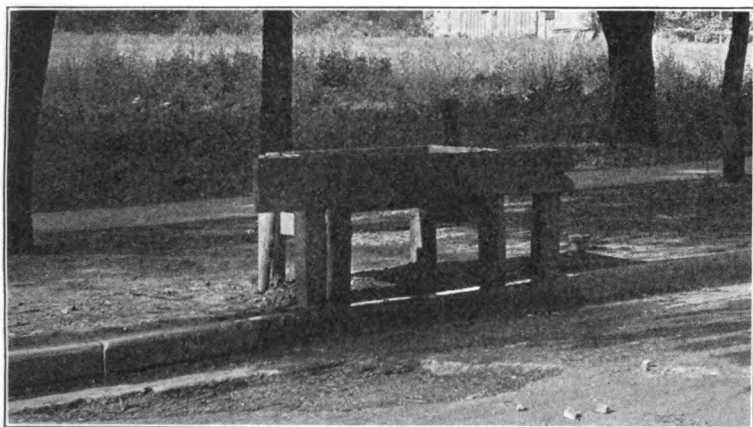


## CITY AND COUNTY ADMINISTRATION

breaks in such a way that proper maintenance is more difficult. If much more asphalt is laid in Springfield, however, a city asphalt plant will be needed.

### MACADAM

Macadam, either oil or water bound, is but little used in the city and it is not recommended for Springfield, except on side streets which are not exposed to much surface water, and where



EFFECT OF WATER ON THE PAVEMENT

The overflow from the watering trough in the course of time caused the hole in the asphalt paving. In the same way a neglected hole in asphalt will collect water and often destroy considerable surrounding pavement

the traffic is very light. Its cheapness has caused its extensive use for parks and boulevards, but many cities have learned that it will not stand traffic without high maintenance cost. In the long run, it has often proved to be a very expensive pavement.

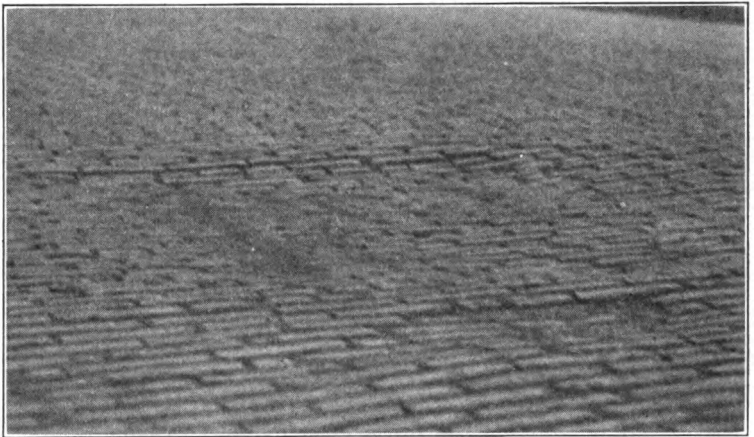
### CONCRETE

Asphaltic concrete, used to some extent in Springfield, is a mixture of asphalt and fine stone placed upon a concrete base. It is suitable for light traffic.

Plain concrete has not been very successful here, except in alleys. Probably it will never work so well in Illinois as in states

## THE SPRINGFIELD SURVEY

where harder native stone is found. But if laid in two courses, as we have recently been informed the 1916 specifications provide for, and if Joplin flint or its equivalent is used for the top course, very good results may be expected. If the paved portion of the street is over 20 feet in width, reinforcement is suggested; this costs only about 10 cents per square yard additional. The pavement should not be used for from fourteen to twenty-one days after completion. Meanwhile it should be kept moist by covering with earth or some other substance. Concrete is not suitable for heavy traffic.



### WHEN THE PAVEMENT FOUNDATION IS FAULTY

The holes in the brick pavement appear clearly to be due to poor foundation. The pavement bed is of first importance, for pavements are almost certain to prove unsatisfactory if the under-construction is faulty. The city should refuse to permit pavements to be laid until sure of the subsoil and the pavement bed

It is a good plan to lay concrete pavements several inches below the normal grade, so that an asphaltic or brick surface can be applied if later found necessary or advisable. A concrete pavement is always an ideal base for such surfacing.

But even concrete will not successfully bridge a sinking of the subsoil. As a general rule it will be found necessary to begin many months in advance in order to get the street in good condition for this paving. Grading and paving in Springfield were

## CITY AND COUNTY ADMINISTRATION

usually done under one contract. This fact, together with the laying of mains too short a time before the pavement was started, has caused many bad spots in the streets. Grading, when extensive, should be allowed time to settle. The city should positively refuse to permit the pavement to be laid until sure of the subsoil, regardless of the wishes of property-owners; for no pavement will prove satisfactory if the foundation is poor.

### BLOCKS

Improved granite block, wood block, and asphalt block, none of which was being used in Springfield, would all give excellent service for the cost involved.\* It is true that wood block is expensive; but it has been found to be cheap where traffic is heavy and when length of service is considered. It is noiseless, smooth, and more durable as a rule than brick, and is therefore the pavement very often recommended for business sections, or for heavy-travel thoroughfares.

The most modern method of laying wood blocks is to do away with the sand cushion, or cement ground, and to set the blocks on a smooth and uniform concrete surface. The blocks are set "hand tight" only, that is, no greater force than the worker's hand is used in laying them together, and they are grouted with a pitch or asphaltic mixture, which is best applied through a pouring device. Long-leaf pine and Southern black gum wood seem to give the best results for heavy traffic. Blocks should be impregnated with a mixture containing at least 75 per cent of creosote made from tar. Blocks should also be grouted when they are full size; not when shrunken by dryness.

### PAVEMENTS RECOMMENDED

As to the choice of pavements, then, for Springfield, it is recommended that for medium and light-traffic streets increased attention be paid to the asphaltic types. Further, it is recommended that for heavy-traffic streets improved granite block and wood block be carefully considered; and that continuous care be given to inspecting the brick used for paving. Macadam under heavy

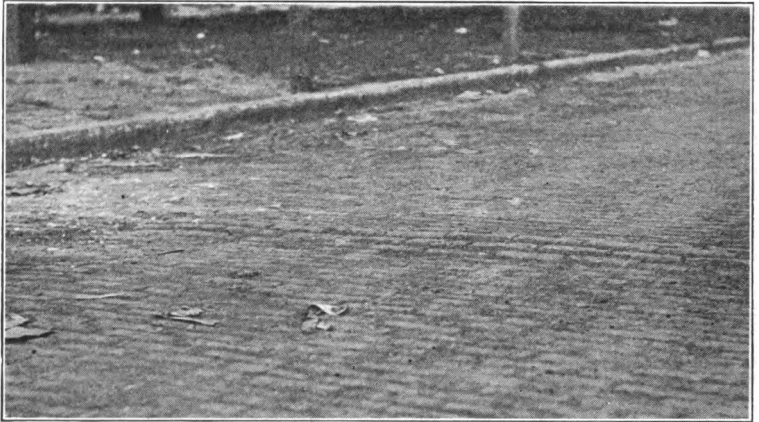
\* During the period since the survey field work, about one-third of a mile of wood-block pavement has been put down in Springfield.

## THE SPRINGFIELD SURVEY

traffic is an expensive pavement, but where traffic is light, if *promptly repaired* (not otherwise), it gives good results. Brick should be considered where noise and dust are not particularly objectionable and where a medium priced pavement that will stand medium to heavy traffic is desirable.

### PAVEMENT REPAIRS

Pavements need to be kept in repair just as does the road bed of a railroad or any other important part of a transportation system. Indeed it not only is important for the efficiency of the service, but a proper regard for economy demands prompt repairs. Pavement specialists know that the cry, "More money



### FAULTY REPLACEMENT OF STREET OPENING

Several rows of the brick paving (through the center of the picture) had been removed, but when they were replaced the work was not done in a way to make the surface of the street as even as it was before. The plan recently adopted of requiring that all street openings be made by one city department—the street department—should prevent the recurrence of faulty work of this kind

for repairs," while it may be old and familiar, is no city-hall fad. It is a means of saving public money, but its importance is not generally appreciated. No one today dares to do more than guess the life of an expensive pavement, because the public is so opposed to pavement-maintenance bills that fair tests have not been possible.

## CITY AND COUNTY ADMINISTRATION

Exactly what pavement repairs were needed in Springfield at the time of our visit was unknown to public officials or others. A first step needed in such a matter is the preparation of street charts upon which the pavement breaks, faults, and general conditions can be roughly sketched. Such charts are often made on material from which, when repairs are computed, the pencilings can be erased, thus leaving a continually up-to-date record of actual conditions in each street. Intelligent estimates of needed repairs are thus made possible, together with information often very important in bringing suits on pavement-guarantee bonds to compel prompt repairs by contractors.

### PAVEMENT OPENINGS AND REPLACEMENTS

The opening and replacement of pavements were being made too freely and by too many different people. Replacements, for example, were being made by the water department, the sewer department, the public utilities companies, and by private plumbers. They should have been made exclusively by the street department; the necessity for this has passed beyond argument and is based on the uniform experience of cities where other methods have been thoroughly tried.\*

Both the refilling and the replacement work should be done by the street-repair gang, and the cost should be charged to the city department or to the other organizations or individuals responsible for the opening. There will then be definite responsibility for what is done, and, by using experienced men, bad results can be kept at the minimum.

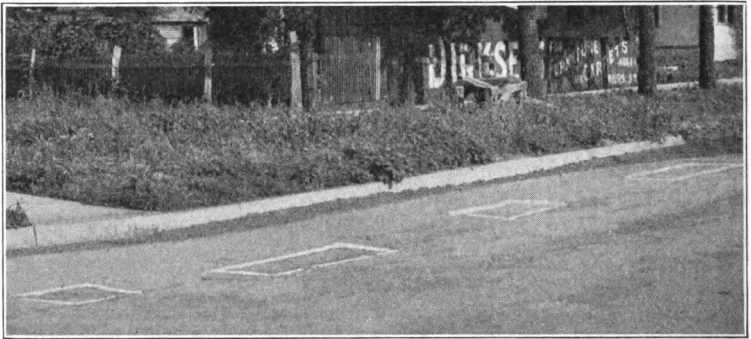
It is still better, of course, if possible, to make no cuts in a pavement; certainly not until after it has been laid for some time. In a few cases openings were made by one or another city department while the pavements were comparatively new. To correct this practice a notice should be served by the commissioner of assessments upon the superintendent of sewers, the commissioner of public property, and any other persons likely to be concerned, as soon as it is reasonably certain that any pavement construction will be started. Then work that would ultimately

\* Since this report was first drafted, the policy has been adopted of requiring that all street openings be made by the street department.

## THE SPRINGFIELD SURVEY

require cutting the street could be anticipated; and by this method controversy as to the person at fault could be eliminated.

An ordinance now prohibits private individuals from making openings for five years after a pavement is laid. Of course the ordinance was not enforced, since it was too unreasonable. Moreover its legality was doubtful. A rational ordinance would be one charging, say, \$50 for a permit to open each six square yards of pavement or a part thereof the first year after the pavement is laid, \$45 for the second year, with a reduction of five dollars every year thereafter until the tenth, when the penalty



CUTS IN PAVEMENTS

The rectangles indicate cuts made in a comparatively new pavement and illustrate a practice needing correction. Many such instances were noted in different parts of the city, which under proper planning and co-ordination of city work could have been avoided

would have run out. Openings running lengthwise of the street should be charged one-quarter of this fee, since such openings are somewhat less objectionable. The fee suggested should be in addition to the cost of replacement. No charge should be made for openings for absolutely necessary repairs.

Notices containing a copy of the new ordinance should then be served upon all residents along the street where new paving is contemplated, and upon gas and heating companies. General publicity should likewise be given to the ordinance. In that way it would work no hardship to purchasers of lots who intend to build, for they will buy knowing exactly what a street connec-

## CITY AND COUNTY ADMINISTRATION

tion will cost, and can count in the amount when agreeing upon a purchase price.

### PAVEMENT AT CURBS

A number of our cities have adopted the practice of making the pavement meet the sidewalk grade at crossings. Care is necessary under this plan to provide adequate drainage, but, when the drainage is taken care of, results are very satisfactory. Street grades in Springfield and drainage facilities are such that this form of intersection is recommended for consideration—particularly since the curbs are very high at many crossings.



A STREET CROSSING IN DAYTON, OHIO

The curbs at a large proportion of the street crossings in Springfield are very high. In order to avoid similar conditions a number of cities have made the pavements meet the sidewalk grade at crossings. The picture shows a street corner in Dayton where the pavement at one side of the corner is brought to the level of the sidewalk, thus doing away with curb and gutter bridge

### RAILROAD CROSSINGS

Railroad crossings on the street level at many points in Springfield are rough and dangerous. Indeed, not many cities of simi-

## THE SPRINGFIELD SURVEY

lar size can show worse conditions in this respect. Vigorous action should be taken to compel the railroad companies to place street crossings in better shape and to maintain them adequately.

### PAVING AND UNDERGROUND WIRING

The amount of wiring in the Springfield streets has increased to such extent that the placing of all wires underground, especially in the business section, should be planned and carried out as rapidly as possible. Of course this is expensive and in some streets it may not be advisable to take action until the pavement must be torn up for some other purpose. Underground wiring should certainly be insisted upon where new pavements are to be laid. The fire dangers alone make it advisable, to say nothing of the improved appearance of the streets where it has been done.\*



### A RAILROAD AND STREET CROSSING

Six railroad lines enter Springfield and three of them cut through either the full length or breadth of the city. A very large number of the railroad crossings are on the street level. Many of these are rough and dangerous, and call for vigorous action to compel the railroad companies to put and to keep them in better condition

### STREET-CLEANING

Considering the condition of the pavements and the comparatively small annual expenditure for cleaning, Springfield streets

\* As this report is being put in final form, announcement is made of plans for putting wires underground in the business district.



## CITY AND COUNTY ADMINISTRATION

were as clean as could be expected.\* The methods used were good and the work of the street gangs was well managed. But under more favorable conditions the streets could be much cleaner, and these conditions should be worked for; indeed, improvements were already being considered by the department.

### FLUSHING THE STREETS

Street-flushing as a means of cleaning is one of the cheapest and most effective methods now followed. The street pressure of the water is but little greater in flushing than in sprinkling, but the water can be delivered in a direction nearly parallel to the surface of the street and in larger quantities than in sprinkling.

Water is absorbed by the brick pavements of Springfield almost as fast as it can be put upon them. About all that is ever accomplished by sprinkling the pavement is to turn the dust into mud, which catches more dust, the whole soon drying into dust again. Moreover sprinkling on asphalt may in the course of time be detrimental to the pavement; and if any dirt is on the surface, the pavement is made so slippery as to be dangerous. A clean pavement is never very slippery even when wet.

It is recommended that sprinkling be discontinued and flushing substituted. The latter is a cure; the former, a very temporary relief. It would probably be desirable to buy several street-flushing wagons, or an automobile flusher, to be used at night on main streets and in the daytime on side streets. The men who pick up street refuse by shovel and hand cart will probably always be necessary in the business section, but each man could cover much more area if the streets were frequently flushed. In addition the work would be aided by an increase in the number of street cans into which the public could thrust paper and refuse instead of throwing them upon the street.

\* Most of the pavements are brick; most of this brick is old; and the openings between the bricks are deep and filled with an accumulation of mud and dust. In addition, the surface of many pavements is extremely irregular and full of humps and hollows. Under such conditions it is impossible to clean the streets thoroughly. Brooms will not reach the bottom of the cracks and even if the dirt is loosened and picked out from one crack it is simply swept into another. Moreover, when the street is sprinkled, the top of the loose material in these cracks takes up the water temporarily. Then the moisture gradually soaks down and the top becomes dry and dusty again.

## THE SPRINGFIELD SURVEY

In all this street-cleaning work it is quite essential that cost data be kept as to the amount spent upon each street—the kinds of data which were not available at the time of the survey.



A SPRINGFIELD STREET SPRINKLER AT WORK

Water from the street sprinklers is absorbed very rapidly by the brick pavements in Springfield. The net result is only a temporary and unsatisfactory relief from dust. Sprinkling on asphalt too has its disadvantages, since, if there is any dirt on the surface, the pavement becomes so slippery as to be dangerous. The discontinuance of sprinkling and the substitution of street-flushing are recommended. The latter is considered one of the cheapest and most effective methods of street cleaning now in use

## CITY DIRT-ROADS

Springfield, as already stated, had 76 miles of pavement in 1916, but a larger amount of dirt roads—in all about 90 miles. A large per cent of the population live on these streets having no pavements. It is obvious that these unpaved roads should at least be equal in quality to dirt roads outside the city. It cannot be said, however, that this is the case; in general the farmers of the county had better dirt roads than their city neighbors, despite

## CITY AND COUNTY ADMINISTRATION

the fact that the taxable valuation per front-foot of property situated along the dirt roads in the city was many times greater.

Until the streets are paved—which is the ultimate solution—their condition can be greatly improved for nine or ten months of the year at a comparatively small additional expenditure. It is largely a matter of method of treatment, for the local soil conditions are favorable, and the city sewer system makes drainage, after the ditches are cleaned and graded, a simple matter in most cases.



RUTS IN A CITY DIRT-ROAD

At certain seasons of the year the unpaved streets of the city are in bad condition. The short stretch of dirt-road shown in the picture is illustrative of a number of roads which, while not in extremely bad condition, were in worse shape than necessary. By a small amount of attention they could be greatly improved.

The provision of adequate road-drainage is the first essential. After that it is important to get road work started early in the spring—as soon as the soil is workable. Attention at that time is imperative; later it is of much less value. Enough importance was not being attached to this fact.

The road should first be smoothed and crowned by means of a scraper or road machine, the center or crown being graded up as high as 18 or 20 inches in most cases. Immediately following

## THE SPRINGFIELD SURVEY

this the road should be thoroughly rolled with a five- to 10-ton roller.\* The road is then ready for use, but should be dragged lightly with a split-log drag several times during the summer, thus restoring the smooth surface and crown.†

After a shower is an excellent time for dragging, but sufficient time should elapse so that the ground is not too sticky. The local soil is said to support a load of four tons to a square foot. With this treatment applied at the proper times of year the roads should be in good condition for nine or ten of the twelve months. If they are put in good condition when freezing begins, as well as when the thaws are over, they may continue smooth through much of the winter.

The method described is best adapted for quick results and in cases where considerable soil needs to be moved. Where no extensive grading is necessary, a better and cheaper road can be built by using, instead of scrapers and rollers, the split-log drag. Metal drags are not so good; they cost more and are likely to move too much soil.‡ The timely use of the split-log would greatly improve Springfield's dirt roads.

## WOODEN CROSS-WALKS

With the above treatment of dirt roads, it is probable that many, if not all, the undesirable wooden street crossings can be removed, or at least replaced, by crossings of cinders or of other filling. These wooden cross-walks are at best but makeshifts, excusable only because of the even worse dirt-road conditions which something must bridge over.

## SIDEWALK-INSPECTION

In municipal administration as well as elsewhere the proverbial little things appear to count. Perhaps that is why a man is so

\* The city had no roller, although its need was imperative unless the use of the road-scraper was to be discontinued.

† Although little attention was being paid to this light dragging when this study was made, the city has since purchased several new light road-drags for this use.

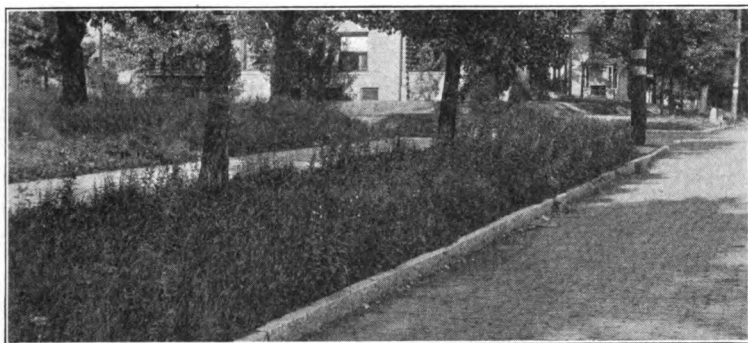
‡ The main idea in the split-log drag is to move very little soil, but to move it often. The surface is then never soft nor unpacked; it is built of compacted earth hardened by traffic. When a scraper is used, usually too much soil is moved to leave it even and compact. Mud and holes often appear. The split-log will even improve a macadam road which has started to deteriorate.

## CITY AND COUNTY ADMINISTRATION

often put "on the outs" with a whole administration if he is obliged to wade over a neighbor's walk where the snow is not shovelled.

Springfield has a sidewalk-inspector who also inspects for weeds and nuisances between the property line and the curb. He was working under a handicap because of technical difficulties in enforcing the various laws and ordinances applying to his work.

The Illinois courts have held that the cutting of weeds between the curb and the walk in a city street, as well as the removal of snow from the sidewalks, is not a matter which can be enforced



### WEEDS BETWEEN THE PROPERTY LINE AND THE CURB

Springfield's sidewalk-inspector is also charged with inspecting for weeds and other nuisances between the property line and the curb. He was greatly handicapped, however, in attempting to secure the cutting of weeds, as the Illinois courts have held that this is not a matter which can be enforced by virtue of the police power. The city has been able to force some attention to this nuisance in other ways, if not to compel its removal. Legislative changes to facilitate legal action are recommended

by virtue of the police power. Or, to state it another way, such orders are held to be in a class with orders to pave streets, construct sewers, etc., and are held to be subject to the strict and tedious procedure of special assessments. Weeds in a private lot, on the other hand, have been construed as a menace to health, and subject to the police power. The city, therefore, has usually been able to force attention to these nuisances, if not to compel their removal; but both constitutional and legislative changes should be made to facilitate legal action. In the mean time it

## THE SPRINGFIELD SURVEY

might help toward accomplishing the desired ends if, after a notice is given to abutting property-owners to cut the weeds along a street, failure to comply with it could be followed by a heavy penalty for permitting weeds inside any lot they possessed.

The sidewalk-inspector was doing little toward compelling lot-owners to cut weeds. The police were supposed to report cases needing attention, but they did not do so to any great extent. All curb conditions should be inspected and checked up by the sidewalk-inspector, together with conditions as to snow and weeds in vacant lots.

The records and follow-up system of the department of streets were unsatisfactory; none whatever was made of defects noticed by the police. These were simply telephoned in and temporarily noted for observation. Neither were notices served upon individuals recorded in duplicate, nor was any tab or check-up system provided. The latter is necessary to insure a prompt following-up of cases. Most of the work plans were merely kept in the inspector's mind or on the small stubs of notices served; but the latter did not show what the property-owner was required to do.

More attention should be paid to dangerous trees and limbs along sidewalks and parkways. Until the city has a tree warden, this work might well be handled by the sidewalk-inspector. He should constantly report dangerous trees or limbs and take measures to see that they are removed. The city taxes property-owners for the entire cost of pavements, yet appeared to take for granted that dead limbs at the sidewalk and curb should be cut at its expense. This only emphasized the need of a warden, for with proper care dying trees can often be saved. A thorough reorganization of the method of sidewalk and weed-control is recommended.

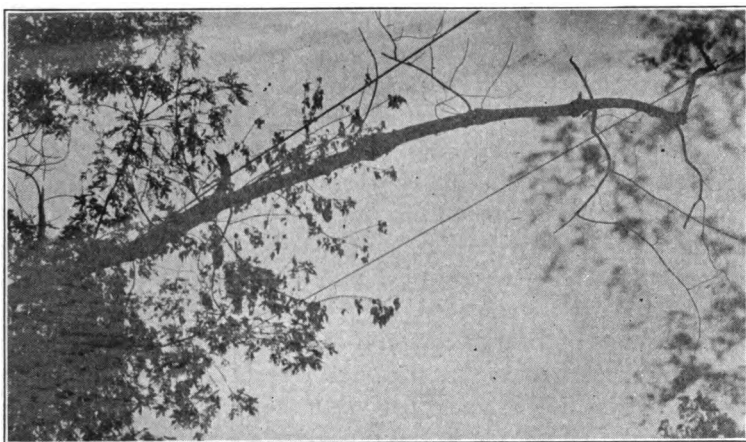
## CARE OF TREES

If Springfield were in danger of losing all its trees and a half-million dollars would save them, there is little doubt that the money would be raised promptly. There is no question about the great value and service of the trees, when the matter is given serious thought. At the same time practically nothing was

## CITY AND COUNTY ADMINISTRATION

being done at the period of our investigation for their preservation and renewal. The number of young trees was very small and the older ones were not being given needed care. Although the necessary attention will cost something and may require legislation, it will prove far-sighted economy. Tree injury is like human injury: a small hurt is easily corrected, but, if neglected, it may prove fatal.

This care calls for a trained tree warden in the city government. Many cities already have such an official. He should



### CARE AND RENEWAL OF TREES

Notwithstanding the value and service of its trees, at the time of the survey practically nothing was being done by the city to preserve them from injury from electric wires and other dangers, or to insure the replacement of those that die or are cut down. The care required calls for the services of a trained tree warden in the city government

be a graduate forester; and the work will be sufficient to require his full time. He should have power to select the kinds of trees for each street and should do all that is necessary for the care of those already planted. While trees along the public streets should have his first attention, he could also give advice to citizens on the care of those on private property. The value of fruit trees in back yards, for instance, has not been sufficiently emphasized heretofore in this day of the high cost of living. It

## THE SPRINGFIELD SURVEY

would be advisable to place the park trees under the warden's care, also, and thus further carry out the idea of centralization already advocated.

### REFUSE-COLLECTION AND DISPOSAL

In the interests of health and civic decency several kinds of refuse in city communities need to be disposed of. Among them are garbage, manure, ashes, and rubbish—not to mention sewage. In the case of none of these was there anything approaching a systematic plan worked out or in operation for Springfield, except in the case of sewage, but even there the situation was entirely unsatisfactory.\* The city had a garbage-incinerator, but no collection system. Individuals could bring refuse to the plant and have it disposed of free of charge, but no one was compelled to do so. The amount brought for disposal was not large. Some of the garbage and other refuse was collected and taken to open dumps at a short distance from the outskirts of the city. These garbage-collections were not paid for by the city but by the citizens from whose premises the refuse was removed.†

Many other cities can show the most satisfactory results, both from the point of view of cost and of keeping streets, alleys, and back yards free from refuse, through the collection and disposal of these wastes at city expense. But the question, particularly in its engineering phases, is one that requires careful study. No one can tell in advance what quantities of refuse will need to be disposed of, what the salvage qualities of each will be, how the quantities of refuse will vary by seasons, or the relative costs of different systems. A study that will take the many varying factors into account is therefore recommended as a basis for a program of disposal. In the mean time several suggestions for a temporary handling of the matter may be useful.

A city collection-system should be installed, and at the same time the use of the dump system for disposal should be continued.

\* For further data and discussion of Springfield conditions with reference to sewage, garbage, and manure, see companion report, *Public Health in Springfield, Illinois*, by Franz Schneider, Jr., pp. 81-84, 86, 111-114, 129-131. (The Springfield Survey.)

† In 1916 a small beginning was made toward a system of garbage-collection by the city.



## CITY AND COUNTY ADMINISTRATION

Dumps are nearly always objectionable unless far removed from dwellings, and then the handling expense is prohibitive. Nevertheless their objectionable character can be mitigated to a certain extent. If dumping is done from movable platforms, so that only a few square yards are "open" at a time, and if these open spots are daily disinfected and covered with fresh earth, the dump can be kept in reasonably good condition. Even with increased collections, the Springfield dump nuisance will be decreased under this kind of control, and may be maintained until the better and more permanent solution can be determined upon.

## CEMETERY ADMINISTRATION

The management of the city cemetery was not covered by the law providing for the new commission government. It is managed by its own board, appointed by the mayor, and the city clerk does its clerical work. It logically should be under the supervision of the commissioner of public property.

The methods of collection of revenue, while an improvement over those in the past, were still out of date and inefficient. A great deal of work for lot-owners was being done on credit; many charges were uncollectable or disputed; and the collector was receiving 10 per cent for collecting all bills not paid in advance. As a result, old accounts continually had to be charged off by the city clerk, causing a preventable loss and calling for an exercise of discretion which should not be placed upon the city clerk. In cases of indigence, the cost of service rendered should not be charged up against regular cemetery expenses, but should be borne by the proper charitable agency, either public or private, after such agency has satisfied itself as to the merits of the case.

The auditors' report for 1914 showed that \$2,267.51 was being carried as a reserve; part of this consisted, however, of these uncollectable accounts. On January 1, 1916, this amount had increased slightly to \$2,309.97. Since our field work, a rule has been adopted providing that only those whose prior bills were paid should be allowed credit. While this is an improvement over old methods, it does not meet the difficulty adequately. A better plan would be to ask for cash payments, just as the city

## THE SPRINGFIELD SURVEY

asks for payments for its water service, light service, and its taxes.

The objection may be made that it is difficult to estimate the cost of some classes of work in advance. No doubt that is true, but the thing to do in such cases is to provide the means of determining costs more easily. The difficulty in estimating costs is another reason for keeping time sheets showing the expenses for different jobs. A superintendent could soon become expert in estimating costs if he had prior cost data. The data, also, would provide an automatic check as to whether employes were reasonably efficient in performing their duties. They would also show whether schedules of charges that were being used were correct.

The work was practically all being done on written, numbered orders, but the superintendent often held orders for some time, or destroyed blanks if mistakes were made in filling them out. So, while the orders were numbered, the numbers were of no use in controlling the cash received by the superintendent.

To improve the general administration of the cemetery the following changes are suggested:

1. That provision be made that all orders shall contain a schedule of prices

2. That a rule be adopted that no work shall be undertaken until payment is made or until some guarantee is offered

3. That registered orders (i. e., orders numbered consecutively in advance) be prepared for the use of the superintendent of the cemetery. If payment is made to him, he should send the original to the city clerk, give a copy to the lot-owner, and retain the third. This will give a record of cash collections. If payment is not made to the superintendent, the original order and the lot-owner's copy should be sent to the city clerk's office and no work undertaken until the superintendent is notified that payment has been made on order number such and such, of which he already has a copy.

4. That cemetery employes be required to keep time and cost records, and that the information be used as a check on the work done and as a basis for charges to be made.

## CITY AND COUNTY ADMINISTRATION

### ELECTIONS

Some one has suggested that if the Spanish people would work on holidays and rest on other days they would actually accomplish more than is now the case, so numerous are their holidays. This is not quite true as yet in Illinois regarding days set aside for election and registration of voters, but the situation is serious enough to demand attention.

If a justice of the peace should resign, a special election must be called to fill the vacancy unless his unexpired term is less than one year. When we consider the relative unimportance of that office and the fact that the primary registration, the holding of the primaries, and the special election necessary to fill the vacancy costs about \$3,000, it is evident that some betterment of the situation should be worked out even though both the constitution and the state laws will need to be revised.

In 1914 the calendar showed the following elections:

January 27—Special election on generator ordinance

February 24—Primaries for township election

March 21—Revision night

April 7—Township and school election

April 28—Special judicial election

September 9—Primary for November election

October 3—General registration—1st day

October 13—General registration—2nd day

October 17—Revision night

November 2—State and county election

The above ten dates all called for a force of election officials, and all but two required the use of polling places. And the year was not exceptional.\* The time consumed by these too numerous elections, and by the primary and registration days, was no inconsiderable amount and it was increasing; the cost of holding the elections was large; the interruptions to ordinary business were by no means negligible matters; and they are ob-

\* Although the subject of elections relates also to county administration, it is considered here under city administration, since all of the elections affect the city but not all have to do with the county and state.

## THE SPRINGFIELD SURVEY

jectionable in the same way as the long ballot in that too many elections scatter the interest and attention of the voter.

In order to improve the situation, the following suggestions for constitutional changes are offered. Provision should be made:

1. For the general use of a short ballot, thus creating more appointive and fewer elective offices
2. For appointments to fill all unexpired terms in judicial offices

### *Legislative Changes*

3. For nomination of township and judicial officers on petition, similar to the method employed of nominating candidates for the school board

4. For the combining of special elections on propositions, and any other elections occurring within ninety days. This is legal now only in cases where the election on a proposition would occur within ninety days of the city commissioners' election

5. For reducing the number of registrations at polling places and for substituting registration at the office of the local election commission. At least, intermediate registrations at polling places should not be held within four months of each other. The primary registrations for commission-government elections could be made in the office, as is now the case in other primaries.

It might also be possible to eliminate one day of the general registration by permitting after-registration in the office. By adding sufficient "red tape" to this office registration, no one would willingly fail to appear on the regular day, since he would find the difficulties and delay of office registration something to be avoided if at all possible. Another suggestion is that no one be allowed to sign more than one petition for nomination of candidates for a particular office, the first petition only to count unless the signature on it is withdrawn.

### SIZE OF POLLING DISTRICTS, ETC.

The large number of voters handled in election districts in Springfield recently when women voted for the first time indicated that the present purpose of the law to keep election dis-

## CITY AND COUNTY ADMINISTRATION

tricts not larger than 450 voters and to make the standard 300 is likely to require an increase in such districts. The present law does not provide for the fluctuation in the numbers of voters due to the presence of women at some elections and not at others. It does not seem to us desirable, for economical and other reasons, to increase the number of these districts at present in order to provide for these wide fluctuations. It would be better to amend the law to allow more voters to be handled.

The number of reserve ballots supplied for each district was double that of votes cast at the preceding general election. This was excessive. Ten per cent over the registered number of electors would be sufficient, particularly if the board of election commissioners would supply themselves with an additional reserve of 20 per cent of the total required for the whole city, the designation of the district to be left blank. Then, if it becomes necessary to supply more to some district, the blank space could be filled by using a rubber stamp. This would materially reduce printing costs.

Not all ballots were being purchased under competitive bids. They should be.

The use of schools and public buildings for election purposes is to be greatly commended; 12 polling places out of 41 were in the schools and free from rent.

In general the administration of the election board in Springfield seemed to be giving satisfaction.

## SUMMARY

Property worth over \$700,000 was destroyed by fire in Springfield during the five years prior to 1915; the average loss per fire was above \$500, a moderate figure; but the average per capita loss, \$2.88, was comparatively high. The average number of fires was also high. A large part of this loss, probably over half, was preventable.

The organization and general administration of the fire department compared well with that of many other places. The number of men on the force, however, was too small; and there was no age limit set for compulsory retirement. Appointments are by civil service certification. Dismissals can be made only

## THE SPRINGFIELD SURVEY

after a review by a court. It would be better if trials for dismissal were held by the department head instead of by the civil service commission, and were not subject to court review.

The fire department was weak in the training and drilling of its members. Nor had it gone far in developing modern fire-prevention work, a very important feature of the service.

The department was compiling valuable data on its work; but these data and their significance were given very little general publicity. More clerical help and assistance from the comptroller's office would be useful in improving the record-keeping of the department.

Hardly half of the movable apparatus of the department—fire engines, hose carts, etc.—were motor driven. As rapidly as possible horse-drawn apparatus should be replaced by motor-drawn apparatus. It gives more efficient service, and is proving more economical. The new equipment will have a bearing upon current questions of construction and location of fire stations; changes may very well wait such installation, unless a thorough study of the station-house question looking to a station-house plan for the whole city is immediately instituted. Other changes in minor equipment were needed.

The fire-alarm system is decidedly inadequate. It is little used, most alarms coming in over the telephone. The matter demands careful consideration by the department. In the mean time, the telephone, with certain advisable precautions, may be used.

For the ordinary fire, Springfield's water supply is adequate, but not for emergencies. A new water main between the pumping station and the city, laid along a different route from the one now used, is highly important. The large water mains also need to be joined by more frequent cross mains, and frequent gate valves should be installed. More hydrants and sprinkler systems are desirable.

Many of these improvements are demanded by the underwriters as an alternative to an increase in local insurance rates. The changes are reasonable, however, for other economic and social considerations.

The establishing of the bureau of buildings, centralizing mat-

## CITY AND COUNTY ADMINISTRATION

ters relating to building construction, is a gain for the city. More attention, however, needed to be given to systematic and continuous building-inspections, both in the interests of safety from fire and from poor construction, and for the meeting of required housing standards as to light, air, and general sanitation. A new housing code is essential to the satisfactory prosecution of a modern program for the building bureau. Attention needs to be given to a proper districting of the city so that factory districts will not encroach upon residential sections; and vice versa.

The water-supply system is owned and operated by the city. It is worth approximately \$1,000,000. About half this amount has been expended in developing and equipping the system, the amount being paid out of profits from water rates; the remainder has been covered by different issues of city bonds. The department is facing large expenditures for the construction of new mains and for the extension of the smaller connections. It is recommended that where extensions are made the smaller connections be charged to lot-owners.

The department has succeeded in securing a very general installation of meters throughout the city. It deserves credit also for instituting periodic tests of the accuracy of the meters.

Many factors must be taken into account in passing judgment on the fairness of water rates. A comparison of rates in different cities is significant only as showing whether the particular ones in question are within the bounds of general practice. Springfield rates when compared with the average of some 640 American cities in 1915 made a favorable showing; they were considerably below the average.

The conclusion, after going over all the accounts, was that the water department was being efficiently managed.

For a number of years the city has owned and operated a small electric light plant. The service, until recently, was used in street-lighting, but the plant has lately been transferred to the city water works, a change which is in the interest of better management and operation; and it now furnishes more service.

The city has a good equipment for testing gas and gas meters, but the service was very little used. The attention of the public

## THE SPRINGFIELD SURVEY

was not drawn to violations of the ordinance requirements applying to the heating quality of gas. No tests of electric meters were being made. It is recommended that this work be turned over to the state.

The city was not giving sufficient attention and support to the inspection of weights and measures. The laws and ordinances relating to them were also deficient. A better law and state inspection are recommended.

The office of either city attorney or corporation counsel should be abolished and the law department be put under one responsible head, with power to appoint assistants. All the legal work of the different city departments and boards should then be centralized here.

In 1914 about 58 per cent of the 161 miles of streets in Springfield were unpaved. The part unpaved in 1916 was still more than half. On the paved streets, brick was very largely used. Asphalt, macadam, asphaltic concrete, and a small amount of mineral rubber, dolarway, and wood blocks were also used. No absolute rule as to any one pavement's being everywhere best can be laid down. Pavements must be chosen to meet specific local conditions. Brick is cheap and serviceable in Springfield. Asphalt, too, if well laid and promptly repaired, especially where the traffic is not heavy, usually shows good results for the money expended. Macadam is little used in Springfield, and its further extension is not desirable. Concrete, laid under certain precautions, is fairly satisfactory. It is recommended that increased attention be given to asphaltic types of pavement for medium and light-traffic streets, and to improved granite block and wood block for heavy-traffic streets. These are suggestions for immediate consideration. A careful study of the pavement question should ultimately be made; and it should be supplemented by, or include, a survey of the need of pavement repairs. Pavement openings and replacements should be charged to the parties responsible for their being made.

Local railroad crossings were rough and dangerous; the railway companies should be required to put them into better shape. All electric wiring should be put underground, especially in the business section.



## CITY AND COUNTY ADMINISTRATION

All things considered, the streets were on the whole as clean as conditions permitted. Flushing of paved streets should be done to a greater extent. Unpaved streets can be much improved by early spring work, and by making more use of light road-draws.

The sidewalk-inspector, who also made inspections for weeds and nuisances, was handicapped by legal difficulties. Better work, in spite of the handicaps, was nevertheless possible.

The city has a great asset in its multitude of shade trees, but practically nothing was being done at the time of the survey for their preservation and renewal. A tree warden's services were recommended, part of his duties being to care for the park trees.

The collection and disposal of garbage, manure, ashes, and other refuse was unsatisfactory. A broad city collection-system should be installed and the dump system of disposal should be continued temporarily until a feasible plan, based upon careful inquiry, can be worked out.

The finances of the city cemetery should be put more nearly upon a cash basis, and other administrative changes should be instituted.

Too much time and money are spent upon elections. Certain constitutional and legislative changes looking toward an improvement in the situation are recommended. The administrative work of the board of election commissioners was giving satisfaction.

## IV

### CURRENT INCOME OF THE CITY GOVERNMENT

In order to provide the various community services discussed in this and other divisions of the survey, the local government must have funds—a source of income. During the last few years the corporate revenue of the city of Springfield has averaged about \$400,000. The revenue of the city school district raised in the city amounted to something above this figure;\* and that of the park district, something over \$100,000. If to these sums is added the amount raised in the city to pay township, county, and state taxes, it will be seen that the funds taken for public purposes in recent years approximate a million and a quarter a year.

Of the \$400,000, in round numbers, of corporate revenue of the city, city taxation brought in, roughly, \$270,000, or about 68 per cent; and retail liquor licenses approximately \$110,000, or about 28 per cent. The remaining 4 per cent came from other license charges, from franchise moneys, interest on deposits, fines, and miscellaneous smaller collections.

#### CITY TAXES

Of the \$270,000 of income from local taxes, nearly three-fourths was raised from real estate assessments, and about one-fourth from personal property. A small capital stock tax and an insurance tax brought in the remainder. Consideration of the taxation of real and personal property may be divided conveniently into three main parts: the assessment of property values, the determination and levy of tax rates, and the collection of the taxes levied.

\* For a discussion of the financial administration of the public schools, see companion report, *The Public Schools of Springfield, Illinois*, by Leonard P. Ayres, pages 92-103. (*The Springfield Survey*.)

## CITY AND COUNTY ADMINISTRATION

### ASSESSMENT OF REAL ESTATE

In Sangamon County the county treasurer is supervisor of assessments.\* Under him are 26 local assessors, one elected for each township, except Capital Township, which is coextensive with Springfield and in which the county clerk acts as assessor with assistants under him. Assessors value both real estate and personal property; and these valuations are made the basis for tax levies by the various state, county, city, and other local taxing bodies.

The assessed value of real estate in Springfield has varied between \$11,000,000 and \$13,000,000 during the last half-dozen years; that of the county exclusive of Springfield has averaged about \$23,000,000. The total for the county including the county-seat city thus averaged about \$36,000,000. These amounts are very much below the full value or market value of the real estate assessed.

From the earliest administration of tax laws in Illinois to the present, real estate has been grossly undervalued. At times even during the last decade or so the assessed value has represented less than one-eighth of the estimated true value.† At first the undervaluation was a matter of custom, but in 1898 an act of the legislature made the custom legal by providing that the taxable value should be 20 per cent of the full value. In 1909

\* Since taxation procedures and the administration of the tax laws applying to the county and to the smaller governing units are very much interrelated, the consideration of county taxation is also included at this point rather than later where general county administration is discussed.

† For a detailed study of the tax situation in Illinois, the reader is referred to a report on the Taxation and Revenue System of Illinois prepared for the Special Tax Commission of the State of Illinois (1910) by Professor John A. Fairlie. While the report covers conditions in the whole state, our investigations in the county indicated to us that the report has special applicability to Springfield and Sangamon County, Chapter XI, presenting a summary of the conclusions of the commission, is reproduced as Appendix B, on pages 151 and 152 of this volume.

The reader who wishes to pursue taxation and other county and city-government questions further will be interested, also, in a report on Town and County Government, prepared for the Joint Legislative Committee of the 47th Illinois General Assembly on County and Township Organization, Roads, Highways, and Bridges (1913), also prepared by Professor Fairlie.

Both of these reports have been drawn upon freely in checking up and supplementing our own data and conclusions.

## THE SPRINGFIELD SURVEY

this was increased to  $33\frac{1}{3}$  per cent. The laws, however, have not been effective in obtaining assessments even in the small proportions required.

The procedure is first for the assessors to set down their estimates of the full or market value of real estate, and then to take one-third of this amount as the taxable value against which the tax rates are to be applied. But instead of making the first estimates at 100 per cent, or at least 90 per cent, of full value, the amounts represent approximately 67 per cent—no one knows *exactly*. Then when one-third of this amount is taken, the assessed taxable value in fact comes to represent about one-third of 67 per cent or about 20 or 22 per cent of the true value. So the present assessed valuations still represent only one-fifth, if not less, of the amounts which they should represent.

The difficulty of maintaining a uniform ratio between assessed valuations and market values is recognized throughout the county, and this undervaluing practice adds further complications. On this point the comment of Professor Fairlie upon the Illinois situation is particularly apt:

“It is sometimes urged that it makes little difference whether property is assessed at full value or at a percentage of that value. But when once a departure is made from the standard of full value, it appears to be impossible for assessors to adhere to any definite standard; and the inevitable result of undervaluations is not only an unnecessary increase in the nominal tax rate, but also marked variations in the standards of valuation between different classes of property, different classes of persons, different pieces of property and different individuals; and a pronounced violation of the constitutional requirement that taxation shall be in proportion to the value of property.”\*

All of the results which Professor Fairlie forecasts were to be found in Springfield and Sangamon County. The nominal tax rate was about five times as large as it should have been, and as it would have been, had the practice of undervaluation been corrected. And there were disproportionate and unjust variations in the standards used in appraising land values in different parts of the city and county. Not only were there differences in the

\* Fairlie, John A.: Taxation and Revenue System of Illinois, page 15.

## CITY AND COUNTY ADMINISTRATION

proportions of value assessed against different classes and pieces of property and against different individuals and classes of persons, but there were also differences in the standards applied in assessing property in the various townships. In order to escape as much of the county tax as possible there was a marked tendency among the township assessors to fix extremely low valuations in their own bailiwicks. The result was a complete lack of uniformity in ratios between assessments and true values, and therefore a great deal of unfair shifting of tax burdens.

A change to assessments at from 90 to 100 per cent of actual value is strongly recommended. In addition to amending the state law, another important means to this end would be found in the selection of better-qualified assessing officers.

### ASSESSING OFFICERS

As already stated, Sangamon County has 26 tax assessors, one for each township, in addition to the assessing officers of the city of Springfield, who work under the county clerk. They are elected locally, and the charge is common that they are by no means free from special and political influences in making up the roll of taxable valuations. Their terms of office are short, and they usually possess no special aptitude for the tax work. The Joint Legislative Committee of the 47th Illinois General Assembly reported that prolonged and emphatic complaints of the system of separate town assessments have been voiced ever since its introduction. In answer to inquiries made of county officials by the committee, a majority of more than three to one was in favor of substituting county for town assessors.\*

The recommendation of the committee that a county assessor be appointed and provision made for the appointment of deputy assessors is strongly seconded by the survey staff—a recommendation which was made by the Illinois Revenue Commission of 1886, the Special Tax Commission of 1910, and the Joint Legislative Committee of the 47th Illinois General Assembly in 1913. Appointments should be made after civil service examinations or other tests which would secure individuals as well qualified for the work as possible.

\* Fairlie, *op. cit.*, pages 147-149.

## THE SPRINGFIELD SURVEY

This change would also provide for a better centralization, co-ordination, and supervision of assessments throughout the city and county than obtains at present—a change which would not lead to an untried experiment, for local assessments have been made by county officers for some time in the Western and Southern states. Indeed, the time spent upon general oversight of the work by the Sangamon County treasurer as ex-officio supervisor of assessments was almost negligible.

When this change is made, the county should no longer pay \$1000, as it now does, to the county treasurer for acting as supervisor of assessments. A saving to the county of this amount will not necessarily follow, however; for, since the salary of the treasurer, \$1950, is probably too low for his duties as treasurer, an increase should probably be made which would bring his salary as treasurer up again to something near his present income from both offices. The charge against the tax-assessment account would be corrected, however.

Such a centralized county assessing system should insure a more equal carrying of county tax burdens as between urban and rural districts. While the supervisor of assessments now has some power to direct how assessors shall proceed to value property, the power as a matter of fact is not used sufficiently; and in any event the plan of supervising township assessors is unworkable. The result is a tendency on the part of each assessor to assess property at just as small a percentage of actual value in his township as he can, without the danger of having his whole roll increased by the reviewing officials. Thus it is quite generally conceded that until 1915 the proportion of actual value assessed was from 20 to 25 per cent lower throughout the county outside the city than it was in Springfield. In 1915 the city's percentage of valuation was reduced, but the assessments still seem to be at a higher proportion of value than those for the property outside. This reduction has seriously handicapped the city and the school district. A central assessing body for the county should remedy the situation.

A further step would be to reorganize the county board of tax review now composed of the chairman of the board of supervisors and two members appointed by the county judge, the

## CITY AND COUNTY ADMINISTRATION

board being given power to revise the original valuations, equalize township assessments, and make other corrections. The work of the board is of such importance as to justify the inclusion of one of the county tax officers among its members.

### STATE BOARD OF EQUALIZATION

A final board of tax-review is the state board of equalization, whose principal duty, in theory at least, is the equalization of the percentage of assessed values with actual values throughout the counties of the state. The board also assesses that part of the capital stock of corporations which is in excess of their tangible property as locally assessed, and it assesses all railroad property. The board is composed of 26 members, one from each congressional district in the state.

The assessing of railroad values has not been performed very scientifically, the failure to do so being due in part to the short sessions of the board, to its large and unwieldy membership, and to the impractical form of its organization. The equalizing function is very sparingly exercised except in cases of glaring inequality. In 1913 no changes in the personalty assessments of the counties were made by this board and changes in land values were made in only eight out of a total of about 100 counties. In lot values, changes were made in only seven counties. The special tax commission of 1910 concluded from an examination of the proceedings of the state board covering a period of years that there was a tendency among members to favor their own counties; that there was indication of a failure to equalize when its need was evident; that the board members were without training for such work; and that they failed to make a personal study of the facts.

As long ago as 1886 the substitution of a small tax commission for the state board of equalization was recommended; and it has been urged from responsible quarters from time to time since then. Such a commission made up of trained individuals giving their full time, with competent assistance, is much needed. By co-ordination with a central assessing office in each county, much progress could then be made in the use of scientific methods of assessment.

## THE SPRINGFIELD SURVEY

These suggested changes have to do principally with the organization and personnel of the various local assessing boards. The methods of these bodies also deserve attention.

### ASSESSMENT METHOD IN SPRINGFIELD

Although it did not wholly correct the assessment faults pointed out above, the adoption of a fixed and mathematical basis for computing land and building values several years ago was an important step ahead for Springfield. The action is to be thoroughly commended.

The system adopted, sometimes called the Somers system, is based upon certain front-foot values which have been agreed upon as fair, and which are to be used as starting points in ascertaining the value of other lots throughout the city. On the basis of these, tables of local values are then worked out.

Similarly for assessing the improvements put on the land, rules based on the square feet of foundation and the height of improvements are used in valuing buildings, a definite cost unit being assigned to each different class of construction. The gross value thus obtained is then depreciated by other tables, by scaling down according to age of the building, the amount of upkeep it has received or required. Through such definite rules, the assessor can come near to treating all owners according to certain fixed principles of fairness—which of course is a first requisite of assessing.

The system was installed in Springfield in 1911 under Burke Vancil, then assessor and later a member of the library board. To obtain the front-foot values the Somers agents called local meetings and the values finally placed were almost without exception satisfactory to the various localities, and they were relatively uniform throughout the city.

The method of arriving at taxable values is illustrated in the schedule of percentages in Table 3. Take, for example, a lot in a district where the front-foot value is fixed at \$20. Let the lot be 100 feet wide and 100 feet deep. If, first, we take no account of the depth of the lot, the valuation would obviously be 100 times \$20, or \$2000. But of course the depth must be taken into account, and at that point the table is brought into the com-



## CITY AND COUNTY ADMINISTRATION

putation. For a lot 100 feet deep, according to the table the valuation should be 100 per cent of the value arrived at by the front-foot computation, or 100 per cent of \$2,000, or still \$2,000.

TABLE 3.—ILLUSTRATIVE SCHEDULE OF PERCENTAGES TO BE APPLIED TO LOT VALUATIONS MADE UP ACCORDING TO DEPTH OF LOT

| Depth in feet | Percentage of unit | Depth in feet | Percentage of unit |
|---------------|--------------------|---------------|--------------------|
| 10            | 25                 | 110           | 104                |
| 20            | 41                 | 120           | 107                |
| 30            | 54                 | 130           | 110                |
| 40            | 64                 | 140           | 113                |
| 50            | 72                 | 150           | 115                |
| 60            | 79                 | 160           | 117                |
| 70            | 86                 | 170           | 118                |
| 80            | 91                 | 180           | 120                |
| 90            | 95                 | 190           | 121                |
| 100           | 100                | 200           | 122                |

If the lot were 50 feet wide, the value would be 50 times \$20 times 100 per cent, or \$1,000. But suppose our 50-foot-wide lot is 60 feet deep; then the \$20-front-foot value would first be multiplied by 50, with a product of \$1,000. Reference then to the table shows that for lots 60 feet in depth the factor 79 per cent should be applied. Multiplying \$1,000 by 79 per cent gives a value of \$790 for this lot. If the lot had been 170 feet deep, \$20 would be multiplied by 50 and then by 118 per cent (from the table), the result being \$1,180. The tables give results very close to the actual value, no matter what the shape of the lots may be.

Still more equitable assessments can be obtained, however, by using the fixed rules now applied to land more as guides than as inflexible standards or absolute determinants. In this, practically all critics are agreed. It is obvious that the desirable or undesirable use to which an adjoining lot is permanently put, and the grade and "lay" of the land, particularly if it is very different from other land in the district, will be the correct measure of valuation of a particular lot far more than will the arbitrary computation of the tables, however correct they may be in other cases. An example is seen in the case where a long-established saloon

## THE SPRINGFIELD SURVEY

business usually adds to the value of the lot which is being used, but usually decreases that of the adjoining lot or lots. The front-foot valuations set for the district in which they are located would ordinarily apply to both alike. In order to take such unusual considerations into account, the rules may need to be modified at times.

The rules that were being used in Springfield have a provision for flexibility called "local influence," which allowed additions or subtractions to be made from the computed value of a lot; but in practice the provision was seldom made use of. It should be used extensively. The reason it was not put into practice was not clear.

### CORNER-LOT VALUATIONS

In the first edition of this report and in the Springfield Survey Exhibition comment was made upon the very great difference in the residential sections between the assessed values of corner lots and of lots near the middle of the blocks. Corner lots were assessed too high in proportion to the valuations placed upon the others. For example, the lot at the corner of Cook and Eighth streets, marked "A" in diagram I, was assessed for over 100 per cent more than lot "C," the third one from the corner. It was clear that lot "A" was worth more than lot "C", but not over 30 per cent more.

In the period since the exhibition the corner-influence rules have been changed. The present rules make the value of the corner lot "A" about 23 per cent higher than lot "C", instead of over 100 per cent. A reduction was also made in the value of lots next to the corner. They are now, if of normal frontage, given the same value as lots nearer the center of the block. These modified rules are much more equitable than the old ones.

At the time of the survey, we found no one in Springfield who knew what the Somers rule for corner "influence" was, or how to apply it. The explanation evidently lay in the fact that corner-lot computations had been made by representatives of the Somers system, but that the rules for these had not been secured by the city when the system was installed. The situation has since changed, however; a uniform rule to be applied in such cases has

# CITY AND COUNTY ADMINISTRATION

been reckoned out and adopted, and is now public property. It provides, first, that the corner lot, to a depth of 100 feet, be assessed like any lot on the block with the same foot-frontage value. Then the rear of the lot is valued as though the lot fronted

|      |          |      |      |            |      |      |      |      |      |      |    |      |              |
|------|----------|------|------|------------|------|------|------|------|------|------|----|------|--------------|
|      |          | \$27 |      | NINTH ST.  |      |      |      |      |      | \$27 |    |      |              |
| \$45 | COOK ST. | \$   | 2206 | 1832       | 994  | 994  | 994  | 994  | 1259 | 1982 | \$ | \$30 | LAWRENCE AVE |
|      |          |      | P    | O          | N    | M    | L    | K    | J    | I    |    |      |              |
|      |          |      |      |            |      |      |      |      |      |      |    |      |              |
| \$45 | COOK ST. | A    | B    | C          | D    | E    | F    | G    | H    |      |    |      |              |
|      |          | \$   | 2923 | 1842       | 1444 | 1444 | 1444 | 1444 | 1658 | 2422 | \$ | \$30 | LAWRENCE AVE |
|      |          |      |      |            |      |      |      |      |      |      |    |      |              |
|      |          | \$40 |      | EIGHTH ST. |      |      |      |      |      | \$40 |    |      |              |

DIAGRAM I.—LOT VALUATIONS FROM CORNER TO CORNER

At the time of the survey investigation corner lots in the residence sections of Springfield were assessed too high in proportion to the valuations placed upon other lots; and this conclusion was later presented in the Survey Exhibition. The rules applying to corner lots have since been changed, reducing the difference in valuations to a much more equitable figure

on the side street only, except that the foot-frontage value applied is to be one-half of the foot-frontage value on the side street. While this rule may not be perfect, or theoretically correct, it is giving comparatively good results, and is far superior to the former procedure based upon an unknown rule.

## THE SPRINGFIELD SURVEY

Again, we found no one who knew what difference was made in applying the rules to business and to residential sections, although the impression seemed to be that corner values were somewhat lower in the residential sections. Such a lack of full information will clearly prove fatal to the whole system and should be remedied. All rules should be simple enough for comprehension by a very high proportion, at least, of the people; they should be made public, and should be used, as already suggested, only as guides, not as absolute determinants.

### ASSESSING BUILDINGS AND IMPROVEMENTS

When the Somers system was installed in 1911, tables and rules for valuing buildings and improvements were used, and these were open to the public. They have since been abandoned to the extent that in 1916 they were no longer used exclusively, nor were they officially open to the public. In fact no complete set of mathematical tables was being used in that year nor were they shown in justification of assessments. The reasons given for abandonment were, first, that the original rules were not correct for Springfield; and, second, that depreciation of property depends upon the lack of upkeep and repair, and, with a limited time for assessment, it was impossible to determine all the facts necessary if the tables were to be used for computing the depreciation.

The first objection does not appear to us sound, for it is possible and practicable to change the rules until they are at least approximately correct for a given community. This has proved possible in many cities. If outside help is necessary to correct them, it should be obtained; but that would hardly seem necessary.

As to the second objection, it is unfortunately true that all assessing is done within a short period, but this can be changed by administrative action and without legislation in so far as it applies to the assessing of real property. An all-time force, properly organized, is no more expensive and is likely to be much more efficient than the present part-time force. Of course the law requires that values be made up as of April 1; but this can be complied with by a rechecking as of that date. With enough time available, then, for a more systematic study of all new improve-

## CITY AND COUNTY ADMINISTRATION

ments, and for a rechecking of all old buildings, by using the fixed rules, very uniform results would be possible. And, best of all, the reasons for the values assessed can then be made public.

A main point is to eliminate all "guessing," as far as that is possible, and to reduce the peculiar local factors to a small number—to one, if possible. Thus two brick houses of the same type and number of stories would have their values computed by the same rules gauged on the square feet of floor space and the number of stories; their values would also be scaled down for depreciation by a uniform rule made upon the basis of age. The only factor that would probably not be the same for both nor uniform in its application might be the allowance for upkeep and repairs. One may have had more than normal repairs made; the other, less than normal. This fact could then be taken into account and thus the total ground for discussion will have been reduced to a single item.

Land and buildings or other improvements are valued separately in Springfield—a method which general experience in assessing is tending strongly to approve.

According to the state law, property valuations for taxation purposes are made up only once in four years, except in cases of new buildings, additions, destructions or injuries to land or personality. Such cases where unusual changes have occurred, however, represent a very small part of all property; and hence the plan followed means practically no changes in taxable values for periods of four years at a time. This is contrary to the best practice. Obviously the cash value of all pieces of real estate does not remain uniform through so long a time. Some will increase in value while others may decrease; but even where the general movement is toward higher values not all will increase in value at the same rate, and disproportions in taxation are sure to arise; for the property rising in value fastest will escape some of its proper tax burden.

Indeed, instead of allowing these increments in land values to escape taxation for parts of the four-year periods, the proposal is now being made from time to time in many cities to put such an additional tax on land as would claim a part, at least, of the increased land value which is due to the general growth of the com-

## THE SPRINGFIELD SURVEY

munity. Such taxes have been in operation for a number of years in several European countries, and a half-dozen or more American and Canadian cities during the last few years have been experimenting along lines somewhat similar. The results, either here or abroad, have not yet been sufficiently clear to warrant a specific recommendation for the conditions prevailing in Springfield. But the question is of sufficient importance to demand its careful consideration in the not-distant future. In the mean time, real estate valuations by competent assessors should be made up annually at least, instead of once in four years.

All public property is exempt; also that privately owned but used for educational, charitable, or religious purposes. Such property was listed on the books, but no valuations given to it. The records on this point should be made complete, for it is important in many connections to know the value of publicly-owned property, and that privately owned but used for public purposes.

### PUBLICITY OF ASSESSMENTS

As already indicated, another means of securing greater equity of assessments is found in full publicity, not only of the valuation figures, but of the various assessing methods followed. Practically nothing of this work was being done in Springfield and Sangamon County beyond keeping the assessors' books open to public inspection.

A very effective method of giving publicity to tax valuations is that followed by the department of taxes and assessments in New York City, which each year publishes an elaborate system of large maps, nearly 150 in all, in a single volume, and circulates it in the city. The maps show the front-foot assessments for every block in the city. The department also prints other descriptive matter relating to the administration of the tax laws. Something of this kind is recommended for Springfield and Sangamon County.

### PERSONAL-PROPERTY ASSESSMENTS

*The administration of the personal-property tax in Springfield and Sangamon County, as in many other localities in this country, was extremely unsatisfactory. Real estate, as already seen, was*

# CITY AND COUNTY ADMINISTRATION

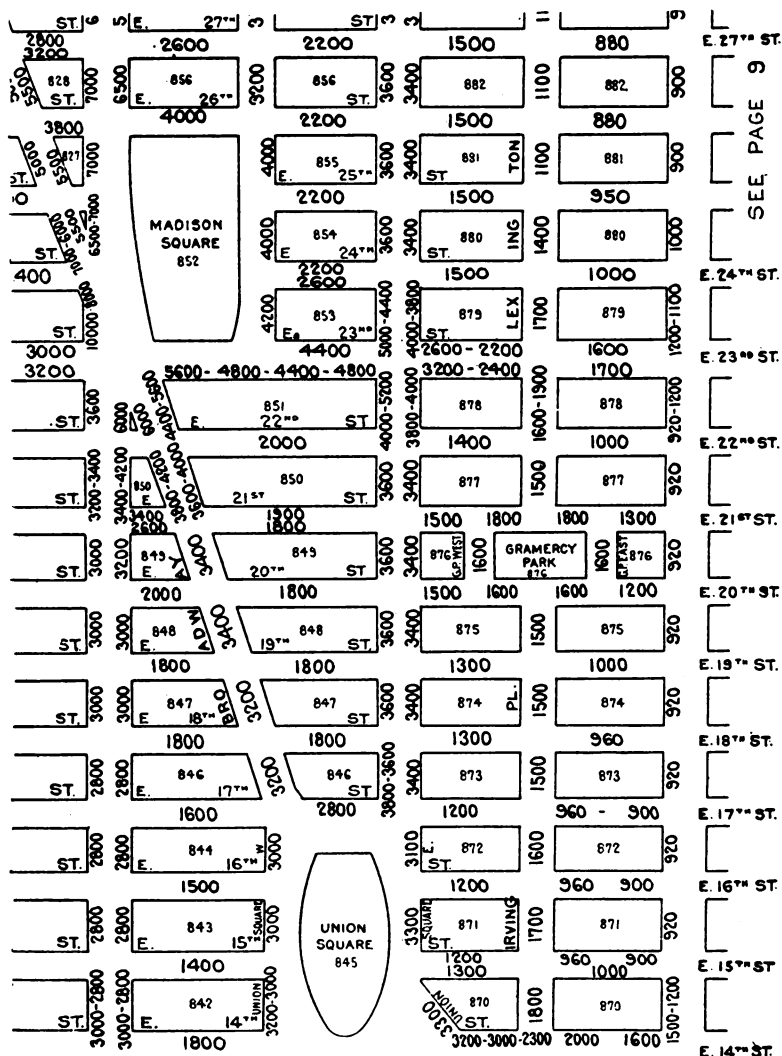


DIAGRAM 2.—SECTION OF ONE OF THE LAND VALUE MAPS USED BY CITY ASSESSORS IN NEW YORK CITY IN 1917  
(Section reproduced in exact size of original)

In order to secure publicity to its tax valuations, the department of taxes and assessments of the City of New York publishes annually a volume of land value maps showing the foot-front valuations for all parts of the city. In view of the importance of full publicity as a means of securing greater equity of assessments, methods similar to those followed in New York are recommended for Springfield

# THE SPRINGFIELD SURVEY

grossly undervalued, but the undervaluation of personalty was still worse. Indeed, a great proportion escaped assessment entirely. This was particularly true of intangible personalty, such as stocks, bonds, mortgages, and the like. The result is that a small number of property-owners pay the personal-property tax—property-owners who are so burdened not by any just process of selection, but because they are honest in listing their holdings,

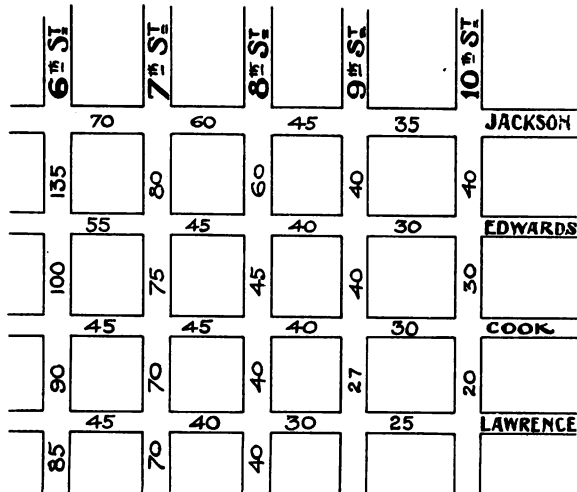


DIAGRAM 3.—SECTION OF LAND VALUE MAP IN COUNTY CLERK'S OFFICE IN SPRINGFIELD

The figures show foot-front valuations placed upon real estate for purpose of tax assessment in 1914. The map is on file in the county clerk's office, but is not published. Its reproduction in brief pamphlet form, section by section, showing the bases for assessed valuations in all parts of the city, would be a very desirable step in the direction of full publicity in tax matters

because they are small investors with but little opportunity to place their funds in untaxed districts outside the state, or because they are corporations whose books are open to inspection. In other words, the operation of this tax favors the perjurer at the expense of the conscientious, and makes false swearing more or less an accepted custom; it is certain in its application to trust estates and the like, which are matters of public record, falling very generally upon widows and children who have small funds



## CITY AND COUNTY ADMINISTRATION

left them; it falls heavily upon corporations whose business transactions are also matters of public record; and it is a tax which the well-to-do and resourceful can usually find a way of escaping, while the smaller investor is caught by it. And of course when a large proportion of the investors in one way or another manage to dodge the tax, the others who pay are then disproportionately burdened.

Experience throughout this country indicates the impossibility of taxing personal property, especially intangible personalty, at the same rates as those applied to real estate. The alternative which is meeting with considerable approval is the laying of a more moderate tax on personal property, say a tax at about one-fourth or one-fifth of the rate applied to realty. The experience of Pennsylvania with such a tax on intangible personalty is proving satisfactory. Further, the centralization of the assessment work, with a more expert assessing staff, already recommended, should also help the situation.\*

### LEVY OF TAXES

In levying the annual taxes the first step is the determination of the amount of money needed for public purposes. For state purposes, including the state school tax, the amount and rates to be applied are made up by the state authorities. In the case of local taxes, the amounts needed are certified to the county clerk each year by the various county, township, district, and city

\* A constitutional amendment permitting changes in the present tax laws, among them a provision for the assessment of intangible personal property at a lower rate than other forms of property, was submitted to the voters in November, 1916. Out of a total of 1,343,381 votes cast by men (women not being permitted to vote on this question), the number voting "yes" was 656,298, and the number voting "no" was 295,782. The number of votes cast for members of the General Assembly (the "legislative vote") was 1,269,331. Thus while the sentiment among those voting on the tax amendment was overwhelmingly in favor of granting permission to change the present laws, the total number so voting did not constitute a majority of all votes cast. It did constitute a majority, however, of the "legislative vote" cast.

A controversy immediately arose as to whether or not the amendment was carried, and a State Canvassing Board was appointed to decide. Its decision was in favor of the supporters of the amendment. Application was then made to the Circuit Court of Sangamon County for a writ certiorari to review the findings of the State Canvassing Board. As this report goes to press the question has not been settled finally.

# THE SPRINGFIELD SURVEY

boards. With the assessed valuations as a basis, the county clerk then makes up the rates to be levied.

The total tax rate levied in Springfield, including state, county, school district, park district, township, and all city purposes during the last fifteen years has ranged from \$4.31 per \$1,000 of assessed valuation, in 1903, to \$7.66 in 1916. The rates in detail for the fifteen years are shown in Table 4.

TABLE 4.—TAX RATES LEVIED IN THE CITY OF SPRINGFIELD DURING THE FOURTEEN YEARS FROM 1903 TO 1916, INCLUSIVE

| Year | Rates per \$100 of Taxable Valuation |                                      |                                    |                            |                       |                                    |                   | Total |
|------|--------------------------------------|--------------------------------------|------------------------------------|----------------------------|-----------------------|------------------------------------|-------------------|-------|
|      | State                                | County, including bonds and interest | City, including bonds and interest | School, including building | Park, including bonds | Town, <sup>7</sup> including bonds | Street and bridge |       |
| 1903 | .32                                  | .56                                  | 1.69                               | 1.41                       | .23                   | .10                                | ..                | 4.31  |
| 1904 | .33                                  | .63                                  | 1.56                               | 1.46                       | .24                   | .10                                | ..                | 4.32  |
| 1905 | .30                                  | .61                                  | 1.53                               | 1.56                       | .32                   | .10                                | ..                | 4.42  |
| 1906 | .30                                  | .55                                  | 1.71                               | 1.50                       | .40                   | .10                                | ..                | 4.56  |
| 1907 | .30                                  | .60                                  | 1.56                               | 1.62                       | .40                   | .10                                | ..                | 4.58  |
| 1908 | .30                                  | .60                                  | 1.59                               | 1.62                       | .42                   | .27                                | ..                | 4.80  |
| 1909 | .35                                  | .65                                  | 1.62                               | 1.73                       | .44                   | .19                                | ..                | 4.98  |
| 1910 | .30                                  | .62                                  | 1.62                               | 1.95                       | .53                   | .25                                | ..                | 5.27  |
| 1911 | .35                                  | .59                                  | 1.61                               | 1.80                       | .44                   | .09                                | ..                | 4.88  |
| 1912 | .38                                  | .53                                  | 1.64                               | 2.13                       | .46                   | .05                                | .12               | 5.31  |
| 1913 | .70                                  | .77                                  | 1.70                               | 1.95                       | .63                   | .09                                | .33               | 6.17  |
| 1914 | .48                                  | .69                                  | 1.63                               | 2.25                       | .63                   | .10                                | .36               | 6.14  |
| 1915 | .55                                  | .80                                  | 1.72                               | 2.52                       | .68                   | .08                                | .36               | 6.71  |
| 1916 | .80                                  | .80                                  | 1.95                               | 3.00                       | .71                   | .04                                | .36               | 7.66  |

Tax rates taken alone are not necessarily significant; the ratio between assessed valuations and market values has an important bearing, as well as the character of the public service provided for the funds taken. The rates in Springfield would be extraordinarily high if it were not for the fact that taxable valuations represent only a fifth, probably less, of actual property values. The real rate is thus reduced to about \$1.50 or less for each \$100

## CITY AND COUNTY ADMINISTRATION

of market value—a rate that is not high in comparison with rates alone in other similar localities.\*

As to a comparison of the values returned to the public in terms of public service for the funds supplied, there are not sufficient data available in other cities to make such comparison significant. The reader may form some opinion for himself of the service rendered, however, by a reference to all the Springfield survey reports, wherein the attempt has been made to evaluate the efficiency of the many types of public work. He will find many excellencies, and also many serious deficiencies—deficiencies which in large part can be remedied without great additional tax burdens. Many opportunities for economy will also be found. It would appear, then, that, although Springfield has a reasonably low tax rate at present, all things considered, there are nevertheless numerous outstanding opportunities for making the rate less burdensome by giving a greater return through service which the tax money purchases.

When the time comes to assess a higher proportion of the market value of property than is now the case, the city and county will experience a very desirable change in the nominal tax rates. Barring other influences, as assessments are increased, rates will automatically decrease. The decrease will make the local tax rates comparable on more favorable terms with those in other cities, since at present the Springfield factor of undervaluation cannot be accurately estimated and properly discounted.

### COLLECTION OF TAXES

Taxes are due and payable without penalty up to May 1 of each year. After that date, 1 per cent per month, or fraction thereof, is added to the tax bill. Outside of Springfield, taxes are collected by town collectors, one for each township, up to a certain date; after that, by the county treasurer. In Springfield (Capital Township) all taxes are collected by the county treasurer.

\* Before 1909 the law stipulated that assessed valuations should be one-fifth of market value; beginning with 1909 the law required assessments to be increased to one-third of actual value. The indications are that assessments are still as low as one-fifth of true values.

## THE SPRINGFIELD SURVEY

State and county taxes collected by township collectors are paid over to the county treasurer. All other taxes collected in the townships are paid to the proper township official; that is, school taxes are paid over to the proper school officers, etc. The total amount coming into the county treasury has run between \$850,000 and \$1,110,000 during the last few years.

Taxes in Springfield are collected remarkably well. Practically all real-property taxes are collected. This is due to prompt and well-managed tax sales, for which the county treasurer is to be commended. Personal property taxes are more difficult to collect; still, the record of collections is very good indeed. In 1914, out of a total personal-property tax levy of \$75,600 all but about \$1,900, or about 2.5 per cent, was collected. In 1915 the amount uncollected was only 2.2 per cent. Much of this delinquency is undoubtedly due to the fact that many persons who are assessed in the city on April 1 move elsewhere before the tax is payable some ten months later.

The township collectors outside Springfield are not able to collect so large a proportion of the total levy. Since the county treasurer must then collect the large remainder for the township, it has been recommended in previous reports, with which we are in agreement, *that the township collectors be abolished and that the work be put into the hands of the county treasurer.* For the convenience of rural tax payers, the county collector could have his deputies sit in the various townships on certain days advertised in advance. Such a plan would centralize the collecting work in the interest of economy and efficiency.

## TRANSFER OF TAX FUNDS

The law requires that collections of tax moneys made by the county treasurer on behalf of the city should be paid over to the city every ten days. At the time of our field work, these collections were being made every ten days, but not all of the moneys received were being paid over. Neither were the books kept so that the city balances could be readily ascertained; and only after considerable computation could conservative approximations of the balances retained be arrived at. They are presented in detail in Table 5, where it is seen that the treasurer during the

# CITY AND COUNTY ADMINISTRATION

five months' period taken was holding from \$5,140 to \$72,795 which should have been turned over to the city. The money belonged to the city and every cent of it should have been transferred every ten days as the law required. This is particularly desirable since interest was not being paid by the banks on county balances, but was being paid on the bank balances belonging to the city.

TABLE 5.—APPROXIMATE BALANCE OF CITY FUNDS RETAINED BY THE COUNTY TREASURER ON DATES SPECIFIED, AFTER PARTIAL TRANSFER OF FUNDS TO THE CITY TREASURER WAS MADE

| Date of payment to city treasurer | Approximate balance held and due the city on dates specified, after partial transfer of funds |
|-----------------------------------|---|
| January 29—1914.....              | \$ 7,750  |
| February 7.....                   | 9,075   |
| February 18.....                  | 17,160  |
| February 27.....                  | 21,215  |
| March 9.....                      | 42,035  |
| March 19.....                     | 66,635  |
| March 28.....                     | 42,790  |
| April 8.....                      | 54,340  |
| April 18.....                     | 61,030  |
| April 28.....                     | 72,795  |
| May 8.....                        | 52,325  |
| May 18.....                       | 35,470  |
| May 28.....                       | 19,265  |
| June 5.....                       | 13,430  |
| June 15.....                      | 12,895  |
| June 25.....                      | 11,125  |
| July 6.....                       | 5,140   |
| Average.....                      | \$32,028  |

Moreover, during the period when these balances were being held the city was compelled to borrow money at 5 per cent interest. Had this money belonging to the city been promptly paid over, interest to the amount of nearly \$700 could have been saved, and the certificates drawing 5 per cent interest could have been promptly retired, as was to be expected. The same situation was pointed out in the school report, where it was shown that about \$50,000 belonging to the board of education was being retained

## THE SPRINGFIELD SURVEY

by the county treasurer. Similarly the funds of the park board were being only partially paid over.

Further, the county treasurer collects the delinquent special-assessment accounts of the city. During the year of the survey these totaled \$36,341.99 and were not being paid over until September 22, although most of this sum had been collected as early as June 15.

The total of all these funds held back ran into large figures. Their retention did not benefit the county because no interest was being paid it on funds the county treasurer had in his possession as tax collector. The treasurer was following a custom of years' standing which deserves severe condemnation.

### SAFE CUSTODY OF FUNDS

The county treasurer was working under a law which should be changed. Under it he is absolutely responsible for the safety of the money in his control. In theory at least, the failure of a bank where the money is deposited would not relieve him of responsibility, but would ordinarily throw him into bankruptcy. He is required to give a very large bond as county collector; in 1915 it was for \$773,000. After the bond is once given, he can keep county money in a stocking if he chooses; there is no provision for a designation of depositories where he may deposit and be relieved of responsibility. If such depositories were named, these institutions could then be required to give security for their deposits; and they at the same time should be made to pay interest at between 2 and 3 per cent on the daily balances. This is exactly what the city is doing and a similar course would save the county a large sum.

The treasurer also has the custody of certain special funds and state moneys. While these are being held, they should earn interest which should go to the county or to the funds themselves.

### COLLECTION FEES

Fees for the transcribing of assessment books and for the collection of taxes are charged to the state, the school district, the city, the park board, and other taxing bodies for whom the county clerk and county treasurer act. These fees are not re-

## CITY AND COUNTY ADMINISTRATION

tained by the clerk or treasurer personally, who receive regular salaries, but very properly are paid into the county treasury. There are indications, however, that the fees charged are not well adjusted to cover the actual cost of the work done. The matter should, sooner or later, be adjusted through the keeping of records which show the amount of time the clerical forces have taken for the taxation work.

One feature of the law relating to fees is absurd. If owners of city property (i. e., of property located in Capital Township) pay their taxes before March 25—that is, during the period when the county treasurer is acting as township or city collector—the city is charged a collection fee of 2 per cent. But, if property-owners wait until April to pay, then the county treasurer, who is still collector, but now acting as a county officer, is authorized at this later date to charge a fee of only 1 per cent. Obviously the fee should be uniform—at least at this stage of the collecting procedure.

## REVENUE FROM CITY LICENSES

According to the auditor's report for 1914, between 28 and 30 per cent of the revenue of the city was obtained from licenses. This included license fees collected from retail and wholesale liquor dealers, proprietors of billiard halls, bowling alleys, dance halls, shooting galleries, livery stables, theaters and moving picture shows, hotels, restaurants, and retail and wholesale meat dealers; also, from hucksters, electricians, milk peddlers, oil peddlers, and a number of others. About 90 per cent of the license revenue, however, or over 26 per cent of the total city revenue, came from retail liquor licenses alone. This obviously, to the harm of clear thinking, injects a revenue issue into the wet-and-dry question. Moreover, with so large a part of the revenue of the city coming from this one quarter, the local saloon question cannot be adequately dealt with alone, but hand in hand with its treatment must go a careful consideration of the related problems of municipal administration. Some other form of regulation of the saloon business than by means of licenses or taxes which are bound to fall disproportionately upon the community should be adopted, and the necessary increase in city revenues should be

## THE SPRINGFIELD SURVEY

taken care of by general taxation. To carry this recommendation out in full, however, attention will need to be given to most of the phases of local taxation already discussed in this report—particularly to the laws which now sanction the undervaluation of taxable property.

### SUMMARY

Of the \$400,000 of corporate revenue of the city in recent years, city taxes brought in about \$270,000; and retail liquor licenses, about \$110,000; together they made up all but about 4 per cent of the total.

Nearly three-fourths of the city taxes came from real estate assessments; personal property paid most of the remainder.

Real estate is grossly underassessed in both Springfield and Sangamon County. The law recognizes this undervaluation tendency by providing that taxable values shall represent one-third of the market value. Present taxable values, however, are as low as one-fifth of the true value; perhaps lower. The practice is without sanction among authorities on taxation; taxable values should be put as near to market value as possible, at least at 90 per cent.

Sangamon County has 26 local assessing officers in addition to the assessing officers for Springfield. Their terms of office are usually short, and for the most part they possess no special aptitude for tax work. A county assessor, with provision for deputies, to assist, is recommended, as well as a reorganization of the county board of tax-review in order to allow for the inclusion of one of the county tax officers among the membership. The reorganization of the state board of equalization, to be made up of trained individuals giving their full time, is also needed in the interest of better local tax-administration.

A step forward was taken a few years ago when the city adopted a fixed and mathematical method for computing land and building values. The rules, however, will produce better results when applied to land if used as guides rather than as absolute determinants. The details of the system should also be given greater publicity. A more consistent following of the rules for assessing buildings is needed.



## CITY AND COUNTY ADMINISTRATION

Land and buildings are assessed separately, a practice that is very generally approved; but the valuations are made only once in four years. This procedure should give place to valuations made annually by competent assessors. The assessment figures, moreover, should receive more publicity, the printing of maps showing front-foot valuations being recommended.

The assessment of personal property, as in many other places, was extremely unsatisfactory because of gross undervaluations and because of much and complete dodging of the tax. It falls disproportionately heavy upon the conscientious, upon corporations whose accounts are public, and upon small investors with few resources for placing their money. A fairer and more practical method would be to levy a more moderate tax on personalty.

Springfield's nominal tax rate is high because of the undervaluation of taxable property; but the actual rate is moderately low.

A very high proportion of the taxes levied are collected. The numerous township collectors, however, do not gather in so large a percentage of their quota as they should. Other complaints against the township collection plan have been registered from time to time. In the interest of greater efficiency, it is recommended that the county treasurer, with sufficient assistance, should collect all taxes within the county.

The holding-back by the county treasurer of large balances belonging to the city, school district, park board, and other government bodies on dates when all funds should have been transferred is thoroughly condemned. Correction of this practice should be made without delay.

The law holds the county treasurer responsible for public funds under his control. A better law would provide for the naming of banks that should meet certain requirements as depositories and that should pay interest to the county on the funds held by them.

About one-fourth of the total city revenue comes from retail liquor licenses. This obviously injects an undesirable revenue issue into the wet-and-dry question. Some other method of regulating the saloon business is desirable.

## V

# THE HANDLING OF THE SPECIAL FUNDS OF THE CITY

### BORROWING FOR CURRENT PURPOSES

The corporate revenue of the city, as stated in the last chapter, approximates \$400,000 annually, the bulk of this coming from the general property tax. This money is raised to meet a previously-estimated need; and each year the total sum is spent. Indeed, the city funds are largely disbursed before they are received; the city borrows against its future income and uses the borrowed funds to pay current expenses. This is due to the fact that its fiscal year ends on February 28, while the funds available through taxation for the expenses of these twelve months do not begin to be payable until the following January, the next to the last month of the fiscal year.

For example, according to the auditor's report, at the end of the fiscal year which closed on February 28, 1914, only \$20,700 of the estimated \$271,885.76 of taxes then due had been paid to the city treasurer. Of course some license fees were paid in advance, but nevertheless on March 1, 1914, the first day of the new fiscal year, the city was borrowing \$245,000 from the banks at 5 per cent interest because of this unbusiness-like arrangement. These loans made in anticipation of future tax funds were obtained through the issuance to the banks of "anticipation" tax-warrants bearing 5 per cent interest.

In addition, the city borrows on certificates of indebtedness and through the issuing of other warrants, usually for pay rolls, which warrants are assigned to, and carried by, the banks. The amounts borrowed on the anticipation tax-warrants and the city funds on deposit in the banks on the first of each month during the fiscal year ending February 28, 1914, the last before our field work, are shown in Table 6.

## CITY AND COUNTY ADMINISTRATION

TABLE 6.—AMOUNTS OWED ON ANTICIPATION TAX-WARRANTS,  
AND CITY FUNDS ON DEPOSIT IN BANKS, ON THE FIRST OF  
EACH MONTH DURING THE FISCAL YEAR ENDING  
FEBRUARY 28, 1914. SPRINGFIELD, ILLINOIS

| Date                   | Outstanding<br>anticipation tax-<br>warrants | Bank balances |
|------------------------|--|---------------|
| March 1, 1913.....     | 139,000                                      | \$68,386.27   |
| April 1, 1913.....     | 130,000                                      | 87,022.30     |
| May 1, 1913.....       | 147,000                                      | 111,471.26    |
| June 1, 1913.....      | 116,000                                      | 75,025.67     |
| July 1, 1913.....      | 116,000                                      | 98,239.58     |
| August 1, 1913.....    | 170,000                                      | 68,344.68     |
| September 1, 1913..... | 191,000                                      | 52,311.01     |
| October 1, 1913.....   | 207,000                                      | 97,262.09     |
| November 1, 1913.....  | 227,000                                      | 82,438.72     |
| December 1, 1913.....  | 247,000                                      | 67,908.29     |
| January 1, 1914.....   | 250,000                                      | 83,904.98     |
| February 1, 1914.....  | 250,000                                      | 88,724.77     |

The city paid \$11,371.26 interest on these anticipation tax-warrants during the year ending February 28, 1914; but it received only \$3,740.70 interest on its bank deposits during the same period. The rates paid in both cases were fair, and showed commendable financing on the part of the public officials. The law as to tax payments, however, which makes such a large amount of borrowing for current purposes, is responsible for a net interest cost of \$7,000 to \$8,000 per year. While this is an item of cost chargeable to the city, it may not in the long run be a total loss to the tax payers; for many, doubtless, can use their tax money profitably during the months when the city is borrowing in anticipation of its payment.

In another way, however, there is a direct loss through this method of financing. The city loses all discounts for cash payments; and bids for work to be done are generally higher than they would otherwise be, because there is no certainty of prompt payments. The comptroller estimated the loss from this source at from \$5,000 to \$10,000 per year.

On first thought it would seem that the daily bank balances

## THE SPRINGFIELD SURVEY

could, and should, be reduced, and that the money should be used to retire anticipation warrants. Since the law permits the lending of money from one fund to another, the balances doubtless can be reduced somewhat, but not to the extent that one might expect. The balances represent many amounts of smaller size the uses of which are partially or wholly restricted. Take, for example, the first balance, \$68,386.27, shown in the table. It was made up as follows:

|                              |                    |
|------------------------------|--------------------|
| Corporate city fund.....     | \$3,579.25         |
| Library fund.....            | 1,566.78           |
| Cemetery fund.....           | 4,276.04           |
| Police pension-fund.....     | 183.99             |
| Fire pension-fund.....       | 861.76             |
| Election fund.....           | 239.25             |
| Water fund.....              | 21,737.06          |
| Special assessment fund..... | 35,942.14          |
| Total.....                   | <u>\$68,386.27</u> |

The corporate city fund, or the working balance of the whole city government, \$3,579.25, was already too low for current purposes. Similarly all of the other items, except the last two, the water fund and the special assessment fund, were either too small for working purposes already or were too small to be of any importance in making transfers to reduce city interest payments. And as to the water fund, \$7,297.10 out of the total of \$21,737.01 was not available because at that time it was attached legally on a very old claim for the sale to the water department of a water-works pump which had never been used. Deducting that sum, the remainder of about \$14,000 was not particularly excessive for working purposes. However, some of the balance could probably have been spared temporarily, particularly at a time in the year when the amount ran much higher than on the date here considered. The special assessment fund consisted of about 60 small funds, each requiring a separate ordinance if money was to be borrowed from it. The total, however, was usually of such size as to make the saving justify the work it would cost. A printed form might be prepared for use in passing these ordinances providing for the temporary use by the city of these special assessment funds. Whether or not this plan is approved, the

## CITY AND COUNTY ADMINISTRATION

fund should be reduced by more prompt retirement of outstanding bonds.

But other steps need to be taken if any substantial relief is to be had from borrowing to pay current expenses. One step is to set ahead the tax-assessment dates by six or eight months; then collect all personalty taxes and one-half of the real property taxes from six to eight months in advance of the present collection dates. It might be provided, too, that, if the last half of the real property tax is paid when the first half is due, a deduction of about 2 per cent on this last half would be allowed. Further, the last half of the real property taxes might be collected six months after the first half—tax sales to follow as at present—and earlier penalties for delinquency in payments could be provided.

Such a plan would greatly relieve the present situation. With an efficient collection procedure, it has been found that the plan of collecting taxes at two periods in the year does not add sufficiently to collection expenses to materially reduce the savings otherwise effected. This should prove to be true in Sangamon County, as the county treasurer's force was not being much increased at tax-collection periods.

To make these changes, it probably would be necessary to change the fiscal years of counties and other tax districts, and generally to revise all revenue laws. Such a revision is desirable in any event.

## CITY BONDS

In addition to these short-time loans on anticipation tax-warrants, the city of Springfield, as is the case with practically all other cities, has found it desirable from time to time to raise the funds to meet special needs by issuing long-time bonds. The total of such bonds outstanding on February 28, 1915, is shown in Table 7. The total of \$725,700 is moderate, particularly when it is remembered that the city water plant alone is valued at more than the total of all the bonds outstanding. Moreover, the total is probably not over 1 per cent of the actual value of assessable real and personal property in the city.

# THE SPRINGFIELD SURVEY

TABLE 7.—OUTSTANDING BONDS OF THE CITY OF SPRINGFIELD, ILLINOIS, ON FEBRUARY 28, 1915

| Date issued       | Date due          | Rate of interest in per-cent-ages | Original amount issued | Amount retired | Amount still out-standing |
|-------------------|-------------------|-----------------------------------|------------------------|----------------|---------------------------|
| September 1, 1900 | September 1, 1920 | 3½                                | \$207,900              | \$58,500       | \$149,400                 |
| September 1, 1901 | September 1, 1920 | 3½                                | 294,600                | 47,000         | 247,600                   |
| September 1, 1903 | September 1, 1923 | 4                                 | 155,800                | 100            | 155,700                   |
| September 1, 1905 | September 1, 1925 | 4                                 | 128,000                | ..             | 128,000                   |
| August 1, 1913    | August 1, 1918-28 | 5 <sup>1</sup>                    | 45,000                 | ..             | 45,000                    |
| Total             |                   |                                   |                        |                | \$725,700                 |

<sup>1</sup> These are "riot bonds," issued to pay judgments obtained against the city after a riot during which considerable property belonging to Negro citizens was destroyed.

## PURPOSES OF THE BOND ISSUES

It would be interesting and important to know how the present bonded debt was incurred, when the bonds were issued, what they were issued for, and how many have been retired. Two auditing firms tried to obtain some such data, but reported that they would be difficult, if not impossible, to secure, and that the information certainly could not be had without long investigation. In preparing this report, this question was also gone into and the same conclusion reached. It is known that all the present bonds, except the riot issue, were put out to refund or pay off old bonds, which themselves were refunding bonds. Issues amounting to \$467,000 were originally put out for water-works purposes and a large additional issue to aid the railroads; but what part of the issues have been paid is not known. The original issue of water bonds was made up as follows:

|  |           |
|--|-----------|
| Issue of January 1, 1866, 20-year bonds amounting to | \$197,000 |
| Issue of May 16, 1867, 20-year bonds amounting to..  | 250,000   |
| Issue of January 1, 1869, 5-year bonds amounting to. | 20,000    |
| Total.....   | \$467,000 |

The impression among all whom we were able to interview was that the original indebtedness on the water works is still

## CITY AND COUNTY ADMINISTRATION

outstanding. The original bonds have been refunded by others, but the principal amount has not been reduced.

## SINKING FUNDS

With a view to correcting the former procedure followed in paying off bonds and in order to put the matter upon a more systematic basis, a sinking-fund ordinance was passed on April 5, 1909, which appropriated funds for the retirement of city bonds to the sum of \$487,000, as shown in Table 8.

The outstanding bonds of all kinds in 1915 were seen to be \$725,700. Thus, after these payments provided through the sinking fund ordinance are all made, the remaining bonded debt of the city, according to the best estimates available, will be about \$238,700. If no more bonds are issued in the mean time and no more money is set aside annually for retirement, the city in 1925 will again have to refund some of these bonds. The present program, however, is fairly liberal, since the bonds are partly the debts of former generations; and they should be distributed as equitably as possible over the present and future payers, none of whom have enjoyed any special benefits from the original expenditures. Springfield is to be congratulated on having this definite program of bond-retirement, even though it does not go so far as it should.

TABLE 8.—SINKING FUNDS FOR THE RETIREMENT OF SPRINGFIELD BONDS PROVIDED FOR BY ORDINANCE OF APRIL 5, 1909

| Years  | Payments to be made |           |
|--|---------------------|-----------|
|  | Annual              | Total     |
| From 1915 to 1920, inclusive.....  | \$30,000            | \$180,000 |
| In 1921.....   | 32,000              | 32,000    |
| From 1922 to 1924 tax for riot bonds.....  | 34,000              | 102,000   |
| By special tax for riot bonds.....   | 4,000               | 28,000    |
| By franchise tax on Springfield Consolidated Railroad Co., from 1915 to 1924, inclusive (estimated)..... | ..                  | 145,000   |
| Total.....   | ..                  | \$487,000 |

## THE SPRINGFIELD SURVEY

### MANAGEMENT OF SINKING FUNDS

The law provides that the city commissioners "shall have the right to determine" the kind of bonds the sinking fund shall purchase and the maximum price to be paid.\*

At the time of the survey, the sinking funds were being used to retire at par  $3\frac{1}{2}$ -per-cent bonds due in 1920 and 1921, although they were selling at about 96. It would be better at the least to retire the 4-per-cent bonds due in 1923 and 1925; and these also should be bought for less than par if possible. The market price may be something different now; but the point here is that those bonds should be retired first which when interest rate and market price are taken into account will yield the city the greatest saving. The commissioners should advertise for offerings of both  $3\frac{1}{2}$ -per-cent and 4-per-cent bonds, and should direct the retirement of those offered at the best values. On the basis of 1914 prices, this would save from \$1200 to \$1600 *annually* over methods followed previously.

Another saving would be possible if the county treasurer were to pay bond moneys over to the state auditor on the date required by law. The law stipulates that the county treasurer shall so transfer on April 15 and July 1 all amounts collected to date. He usually paid nothing over until about September 1. There is no reason why bonds should not be bought in as soon as money is available. It is not necessary to wait for their annual interest date. If this money were paid over according to the law's requirements and bonds were immediately retired, a saving, since about \$30,000 in bonds are retired annually, of from \$300 to \$400 a year would be possible.

### SUGGESTIONS ON BONDING PROCEDURE

The annual interest alone on a bond issue of \$20,000 to run 20 years at  $4\frac{1}{2}$  per cent, if set aside annually and the interest compounded at  $4\frac{1}{2}$  per cent, would in 20 years amount to over \$28,000; and the principal of \$20,000 would still remain unpaid. Because in paying them off bonds ultimately call for large amounts of money and because cities do not always plan to pay

\* Hurd's Illinois Statutes, Sec. 8731 (Act of May 28, 1881).



## CITY AND COUNTY ADMINISTRATION

the principal when due, the issuing of bonds should be regarded with caution, although not necessarily with disfavor. If some other plan of raising moneys for necessary permanent improvements can be found which spreads the burden over an appropriate number of tax levies, and which puts no undue burden on one year, bonds are not advisable. But if the tax levy is limited by law and current community needs will suffer if building and construction are paid for out of current taxes, bonds should be issued. The decision to issue bonds at all should each time be made only after the various factors in the questions are fully considered. And when the decision to issue has been made, the important question of method will still remain. In this connection a few suggestions are offered:

Bonds should be made serial in form; that is, in the case of 20-year bonds, one-twentieth should fall due and be paid from current taxes each year. Only the later issues in Springfield are serials. And installments should not fall due for the first time only at the end of three or four years. Benefits accrue at once and payments should go with them. This form of bond is safer, simpler, and cheaper than those which require sinking funds.

The bonds should all be retired before the end of the life of the improvement for which they were issued; that is, fire apparatus bonds all should fall due within eight to ten years after issue. It is even better to have the term of the bonds three-quarters the life of the improvement; for near the end repair and maintenance charges are usually excessive. There appeared to be no good reason why none of the serial bonds for riot judgments issued in 1913 was made to fall due before 1918.

Every precaution should be taken in order to avoid even a shadow upon the validity of a bond. Uncertainty is always costly and bonds will not bring a good price if a point, no matter how small or technical, can be raised against them.

It will pay Springfield in increased prices for its bonds to employ some nationally-recognized attorney who is a bond expert to approve and steer each issue before bids are asked for. Experience every day shows that bond-buyers will bid more freely and offer better prices for bonds whose legality has been certified by a recognized authority than when they bid upon

## THE SPRINGFIELD SURVEY

bonds whose validity is in any sense uncertain. The cost of the expert service will be more than paid for by the increase in prices bid. In addition, delays are obviated and no second elections are necessary. This is the accepted custom in sections where bonds bring higher prices than in Springfield.

Bonds should be issued in small denominations of \$50 or \$100 and up, and sold locally to small investors. In Topeka, Kansas, and in other cities this plan has been followed at a saving to the city and at an advantage to local investors. There, for example, a small printing firm invested its depreciation fund in city bonds.

The proceeds of bond issues should never go to pay current expenses or be used for other than the specific purpose for which they are issued. The present law provides for this, but caution is necessary to see that the law is followed.

When the constitution is changed to permit it, bonds for parks should be of a longer term than 20 years, and they should allow for graded annual installments, low at first, and the amounts increasing gradually. This method should also apply to the financing of any other type of improvement where the greatest benefits will accrue 25 to 40 years hence, and where immediate purchasing should be encouraged beyond present needs because of the economy by buying at the lower, earlier prices. On the other hand, some improvements, such as fire apparatus, are more valuable at first than later; and there the case is reversed. Payment, then, should be larger at first and should gradually diminish.

## SPECIAL ASSESSMENT FUNDS

Special assessments are special taxes assessed for such public improvements as the building of sewers, the laying of pavements, and the like. The idea behind the assessments is that the benefits to the property-owners are such that they should pay part or all of the cost of the improvements. When the city pays part, it is done on the theory that a general city benefit, as well as a local benefit, is to be had. In paving the streets, moreover, where there is no abutting private property to be assessed, the court usually assesses the city 20 per cent of the cost on the basis that

## CITY AND COUNTY ADMINISTRATION

this pays for street and alley intersections. The proportions demanded by the court vary in the different states.

Where improvements to be paid for by special assessments are to be made, the city for convenience acts as the agent of property-owners; it lets the contract, supervises the work, collects the money due, and pays the contractor.

When new work is desired, agitation for improvements is usually initiated by petition of the owners of 50 per cent of the abutting frontage, although the board of local improvements in Springfield may initiate the movement itself. In any event the board makes recommendations to the city commission, which passes upon the proposed improvements; and after a rather technical proceeding in which the court finally approves the estimates and the assessment roll, the improvement is begun. The Illinois procedure is not without defects, but compares well with the procedure in other states.

When the special assessment roll is completed, property-owners choose between paying their share at once or in five equal installments. In the latter case the city continues to act as agent, and pays the contractor with serial bonds, which he usually sells. The city undertakes to pay the bonds and interest as they become due out of funds collected from the property-owners. Collections usually fall short of the funds expended; and this difference the city, wisely we believe, meets, although it is not obliged to do so. Otherwise the bonds would be rated at lower values because of uncertainty in regard to payment, and contractors' bids would all be made higher accordingly.

During the year ending February 28, 1914, the shortage or deficit in the special assessment accounts was \$2,488.11. In 1915 the year's deficit was \$3,088.88. That is, the city in handling these funds as trustee had to pay such additional amounts over its own proportion of the improvement cost. These losses to the city came about in a number of ways.

First, special assessment collections were not being paid over promptly to the city by the county treasurer. Overdue assessments are turned over to him for collection on April 1. Most of them are collected by June 15, since the tax sales then begin; yet during the year before the survey no money, as has been indi-

## THE SPRINGFIELD SURVEY

cated, was paid the city until September 22, when \$36,341.99 was transferred. As the bonds draw interest at 5 per cent, theoretically this delay caused a loss of from \$400 to \$500—theoretically, because as a matter of fact the city had not been retiring its bonds promptly enough to avail itself of the saving of this bond interest. But it could have saved at least part of it, however, since bank deposits of the city were drawing interest at 3 per cent.

The law requires the county treasurer to transfer these funds every ten days, a plan which would involve considerable unnecessary bookkeeping if he made a detailed accounting with every payment. As a practical solution it is suggested that he make payments on account every ten days, turning over the entire balance on hand, and that he later present his complete report with the final payment.

Second, even after the funds are turned over to the city by the county treasurer there is a further loss of interest, the difference between 3 per cent received on bank balances and 5 per cent paid as interest on bonds. This is due to delay in the retiring of bonds. Assessment bonds can be called in for payment in two ways: the law permits the bonds to be called in by lot any time each year after advertisement in February, and the bonds themselves provide that they may be called in by advertisement each year on their date of issuance. The city has availed itself of neither of these provisions, although its special assessment fund during 1913 showed a balance on the first of each month of from \$18,774.42 to \$51,363.21. The problem is complicated, however, by the fact that there are some 60 special assessment accounts, each of which must be kept separate and can retire only its own bonds. Care is also necessary in the methods used in calling in bonds, since an unfair or unpopular procedure would reduce the selling price when the city has bonds to dispose of. There is opportunity, nevertheless, to save a considerable sum by working out a program of more prompt retirement of these assessment bonds.

Third, nothing additional is charged property-owners on the overdue collections which are made by the county treasurer, although by law he retains 1 per cent of such money collected to pay the county for his services. This fee is thus not paid by the

## CITY AND COUNTY ADMINISTRATION

property-owners when the improvement is made, but is borne by the city. It amounts to an annual loss of \$250 to \$300. A legal provision for a penalty of 5 per cent to be charged citizens on all payments which are delayed beyond April 1 would reduce the amount of their delinquency and hence would lower this cost in fees.

Finally, the law allows the city only 6 per cent of the cost of the improvement to cover the services of engineers, and of the general supervision of the work. In the case of sewer construction, this does not cover actual cost, and hence another loss on this account. The way is through a change in the legal allowance.

### SUMMARY

Because the funds raised by taxation for paying the expenses of the city government are not available until next to the last month of the fiscal year in which they have been incurred, the city borrows heavily to pay for a large part of its current work. These loans in anticipation of tax returns bear interest at 5 per cent. At the same time the city has certain funds on deposit in the banks which draw 3 per cent interest. Both of these rates are fair under the circumstances, but the difference between them, which is a loss to the city, should be saved by temporary use by the city of parts of these bank balances. Also the dates for assessment of taxable property and the collection of taxes should be set ahead from six to eight months, with provision for earlier penalties for delinquency in payments.

The total city bonds outstanding at the end of February, 1915, was \$725,700, a moderate amount in view of the value of the public property alone. Very little was known as to how this indebtedness was incurred, the bonds now outstanding having been issued to refund earlier issues regarding which the records are incomplete. The bonds for the purchase of the water works are probably still unpaid.

A sinking fund ordinance was passed in 1909 providing for the retirement of \$487,000 of outstanding bonds by 1925. Although the present retirement program does not cover the total bonded debt, it is nevertheless fairly liberal.

## THE SPRINGFIELD SURVEY

The city commissioners have the power to determine the kind of bonds to be purchased by the sinking funds and the maximum prices to be paid; but they were not using this power to the full by retiring those bonds which would yield the largest saving to the city. Bond moneys collected by the county treasurer were not being paid over to the state auditor on the dates required by law, thus preventing a further saving by the early retirement of city bonds.

Obligating the future people of the city for the payment of debts made in the present is a matter of sufficient importance to call for careful consideration of all of the factors involved, and the following of certain principles which experience has approved: such, for instance, as the issuing of bonds in serial form; provision for their retirement before the end of the life of the improvement for which they were issued; the extra safeguarding of their validity; the issuing of bonds in small denominations for local purchase; the guarantee that they will not be used to pay current city expenses or for other purposes than those for which they were issued; and the like.

In the levy, collection, and general handling of special assessments, the city was losing from \$2,000 to \$3,000 per year over and above its proportion of the cost of the improvement undertaken. Most or all of this loss could have been prevented by more prompt payment by the county treasurer of assessment funds collected by him and belonging to the city; by the more prompt retirement of special assessment bonds issued to cover the cost of improvements; by penalizing delinquent payers of assessments; and by paying the city for the actual cost of the engineering service which it provides in the construction of sewers.

## VI

### CERTAIN PHASES OF SANGAMON COUNTY GOVERNMENT

#### ORGANIZATION

The governing body in Sangamon County is the county board of supervisors. It has 47 members, one from each of the 26 townships and 21 from Capital Township (coextensive with the city of Springfield). The work of the board is done very largely through some 15 or 20 standing committees dealing with such matters as asylums and hospitals, claims, the court-house and grounds, finance, the jail and jail accounts, judiciary, jury and jury lists, mines and mining, paupers and pauper bills, the poor farm, physicians' claims, printing, roads and bridges, smallpox, and hard roads. In addition there is a long list of elective officers chosen to render certain other administrative services through the agency of the county.

#### LONG BALLOT

The list of elective officers with their terms of office is shown in Table 9 on page 134.

With several candidates running on different tickets for each of these numerous offices the ballot is obviously long and confusing. It presents an unfavorable contrast to that used in the city election where the names of only the candidates for the five commissionerships appear; and under this cumbersome system the centralization of responsibility recognized nowadays as necessary for efficient government is well nigh impossible.

Instead of this multiplicity of elective offices it is recommended that the government of the county be put under a small commission of three or five members elected to take charge of certain definite functions, such as finance, poor relief, hospitals, and so

# THE SPRINGFIELD SURVEY

forth. This commission would take the place of the present county board of supervisors; and township government should be done away with. All the administrative officers should then be appointed by the commission, or preferably by its president or popularly-elected chairman; that is, the county clerk, county treasurer, sheriff, state's attorney and the others, with the possible exception of judges, should be appointed, and should be responsible to the small elective commission or its chairman. A staff of experts would thus be developed.

TABLE 9.—ELECTIVE OFFICERS WITH THEIR TERMS OF OFFICE IN SANGAMON COUNTY, ILLINOIS

| Officers  | Term of office in years |
|---|-------------------------|
| By constitution   |                         |
| County judge <sup>1</sup> .....                             | 4                       |
| State's attorney <sup>2</sup> .....                         | 4                       |
| Sheriff <sup>1</sup> .....                                  | 4                       |
| County clerk <sup>1</sup> .....                             | 4                       |
| Coroner <sup>2</sup> .....                                  | 4                       |
| Clerk of the circuit court <sup>2</sup> .....               | 4                       |
| Treasurer <sup>1</sup> .....                                | 4                       |
| County superintendent of schools <sup>1</sup> .....         | 4                       |
| Recorder of deeds <sup>1</sup> .....                        | 4                       |
| Supervisor (21 for Capital Township) <sup>3</sup> .....     | 2                       |
| Justices of the peace (Capital Township) <sup>1</sup> ..... | 4                       |
| By state law  |                         |
| Probate judge <sup>1</sup> .....                            | 4                       |
| Probate clerk <sup>1</sup> .....                            | 4                       |
| County surveyor <sup>2</sup> .....                          | 4                       |
| County auditor <sup>2</sup> .....                           | 4                       |

<sup>1</sup> Elected in the same year as the state superintendent of schools.

<sup>2</sup> Elected in the same year as the governor of the state is elected.

<sup>3</sup> One-half elected each alternate year.

Whether county judges should be elected or appointed is still a question upon which opinion is seriously divided. Until the case is clearer, the present method of selection may be continued without seriously interfering with the other changes recommended. In any case the court officers should be appointed by the court. Constitutional changes will be necessary to effect these improvements, and they should be kept in mind in case a new constitutional convention should soon be called—as now seems fairly probable.



## CITY AND COUNTY ADMINISTRATION

Another improvement would be the adoption of a non-partisan election procedure similar to that followed in the city. Such matters of importance in national politics as the tariff, foreign relations, and certain other issues have nothing to do with the kinds of persons who should be selected to administer the county government, and it is absurd to allow questions of national politics to continue to be important factors in these strictly local elections.

### CIVIL SERVICE

County officers are not subject to civil service regulations, although these regulations are needed almost as much in the county as in the city. Better methods of selection and the permanency of tenure, under proper civil service regulations, are much more likely to secure well-qualified public servants than are the methods that prevail at present. The use of the civil service regulations, for example, in selecting members of the tax-assessing staff, where training and experience are clearly essential, would be particularly desirable. The same thing is true of nearly all of the clerical work in the county offices, for the books are not readily mastered by those unfamiliar with them; and it was noted in our survey that only the older employes in point of service were at all familiar with the law and procedure relating to their offices. Road-making is another matter requiring expert knowledge, and is a type of work in which the selection of persons to be placed in charge of it should be on the basis of tests of merit.

A good civil service law should be drawn up and adopted as soon as the other necessary legislative changes are made. Citizens will then find that the problem of electing the right men to office becomes less difficult, since whoever is elected will have a trained and efficient organization and staff for the continuance of the work of the office.

### COUNTY BUDGET

Sangamon County has no real budget. As a makeshift, in September of each year an estimate or apportionment of funds needed to carry on the county work is made up as a basis for the

# THE SPRINGFIELD SURVEY

annual tax levy. Until recently this schedule of figures has been used as the chief guide for expenditures during the year. The tax levy made up in this way for the county for the year beginning September 1, 1915, is given in Table 10.

TABLE 10.—SCHEDULE OF FUNDS NEEDED IN SANGAMON COUNTY,  
USED AS A BASIS FOR THE TAX LEVY FOR THE YEAR  
BEGINNING SEPTEMBER 1, 1915

| Purpose of the levy   | Amount of levy |
|---|----------------|
| Board of review, per diem clerk hire and expenses . . . . . | \$2,500.00     |
| Circuit court juries . . . . .                              | 16,000.00      |
| Court purposes . . . . .                                    | 15,000.00      |
| County court juries . . . . .                               | 3,000.00       |
| Court reporters . . . . .                                   | 4,000.00       |
| Court house and grounds, maintenance and repairs . . . . .  | 22,000.00      |
| County officers, fees . . . . .                             | 30,000.00      |
| Dieting prisoners . . . . .                                 | 10,000.00      |
| Elections . . . . .   | 12,000.00      |
| Grand jury . . . . .  | 5,000.00       |
| Interest on anticipated warrants . . . . .                  | 3,000.00       |
| Jail, support and maintenance . . . . .                     | 10,000.00      |
| Paupers and pauper claims . . . . .                         | 40,000.00      |
| Paupers, smallpox . . . . .                                 | 2,000.00       |
| Poor farm, support and maintenance . . . . .                | 30,000.00      |
| Printing and stationery . . . . .                           | 15,000.00      |
| Relief of blind . . . . .                                   | 3,000.00       |
| Probate court juries . . . . .                              | 500.00         |
| Roads . . . . .   | 5,000.00       |
| Bridges . . . . .   | 10,000.00      |
| Salaries, county officers and deputies . . . . .            | 28,000.00      |
| Supervisors, per diem and committee service . . . . .       | 6,000.00       |
| State aid to roads . . . . .                                | 17,100.00      |
| Mothers' pension fund . . . . .                             | 10,000.00      |
| Detention home . . . . .                                    | 4,000.00       |
| Total . . . . .   | \$303,100.00   |

Within the last few years the first effort has been made to show county appropriations separately from this tax-levy schedule. This separate schedule of appropriations subdivides some of the items and also makes an apportionment for offices maintained by fees rather than by tax moneys. The latter offices heretofore did not appear in the tax-levy schedule at all. This

## CITY AND COUNTY ADMINISTRATION

is a step in the right direction; but it is not sufficient to provide an adequate budget procedure. The method followed still has many of the weak features of the earlier attempts at a county budget. It fails to perform the real functions of a budget for a number of reasons, among them the following:

First, the total amount of the schedule of estimated funds needed, even when made up finally, is not based upon, nor made to conform to, the actual, or even accurately-estimated, revenues which are expected to be available. In 1912, for instance, this schedule called for \$250,000, but the revenue as shown by the auditor's report for that year was \$219,865.74.

Second, while the schedule is intended as a guide in making expenditures during the year, it is not actually used for that purpose, for obviously, if it had been followed in 1912, a large deficit would have resulted.

Third, the schedule is improperly classified as to functions or activities; and it is not itemized in detail. It consists, usually, of about 25 items, many of which are lump sums, such as "court house and grounds, maintenance and repairs, \$22,000.00," "poor farm, support and maintenance, \$30,000.00." No groupings are made which would indicate the nature of these items, such as "personal services" or "outlay and maintenance." Some such further classification is essential to show what amounts are for current operation, what for permanent improvement and repair, and so on.

Fourth, no adequate control of accounts to prevent over-expenditures, such as would be provided in a ledger specially arranged for the handling of the different funds, is established; and no record of liabilities is kept. Moreover, the cash accounts do not strictly follow the budget allotments, and thus it is very difficult to use the budget to compare estimated needs and actual expenditures.

With due allowance for improvements in the county-budget procedure made in 1915, still other improvements must be made before a modern budget, prepared under standard classifications and accompanied by proper budget accounting and control, will be had. Such a budget would not show a total in excess of estimated revenues from all sources, and would cover every

## THE SPRINGFIELD SURVEY

expenditure, including even the cost of offices that depend upon fees for part of their support. The items would be controlled and no expenditures made nor liability legally incurred until the auditor had vouched for the fact that funds were available.

Where legal difficulties are to be met in working out such a budget, the law, of course, ought to be changed; but until then the difficulties may be obviated by preparing an informal working budget, which would be a great improvement over the present tax-levy schedule.

### SOME PURPOSES OF BUDGETS

The experience of many cities and counties elsewhere shows that the adoption of standard budgets has had not only a generally useful effect, but has usually been the means of saving public funds. Such, of course, is to be expected, since two of the main objects of annual budget-making are: first, to force each administrative official to formulate in advance an intelligent program for his department, and by afterwards combining all thus made to co-ordinate a program for the city or county as a whole; and, second, by separately controlling the expenditures for each item of the budget to prevent annual expenses from exceeding annual revenues.

And modern budget-making procedures are aimed at still other objectives. Among these are the lessening or elimination of "log-rolling" during the year; the supplying of the public with a means by which it can intelligently follow and participate in the expenditures and administration of the government for the year; the furnishing of a formula which will act as a monthly guide and check to administrative officers; the provision of a framework around which a proper accounting system and system of reporting on public work can be developed; and, finally, the furnishing of a basis by which comparisons can be made with other cities and counties using standard budgets, and by which comparison between the program and results of the present year with prior years can be made. The desirability of developing the Sangamon County budget along modern lines seems obvious.

## CITY AND COUNTY ADMINISTRATION

### SUGGESTED BUDGET CLASSIFICATION

The main divisions of the budget suggested for Sangamon County are as follows:

GENERAL COUNTY GOVERNMENT

JUDICIAL

PROTECTION OF PROPERTY (COUNTY RECORDER)

EDUCATION

HIGHWAYS

CHARITIES AND CORRECTION

Each of these main divisions should then be subdivided with a heading or section for each office or activity. For example, "general county government" would be subdivided somewhat as follows, with a code number for each subdivision:

GENERAL COUNTY GOVERNMENT

- 1 *Supervisors*
- 2 *Auditor*
- 3 *Treasurer*
- 4 *Clerk*
- 5 *Board of Review*
- 6 *Other Officers or Activities*

Then under each office or activity the proposed appropriations would be itemized according to the objects of the expenditure, and again given a code designation, possibly the letters of the alphabet. The suggested items and code letters, for instance, for supervisors, follow:

1 *Supervisors*

- a to b Personal services
- c to g Services other than personal
- h to n Supplies
- o to s Outlay and maintenance
- t to u Debt service
- v to z Other purposes

Each of these items should be divided into subclasses, as, for example, the item *o to s*, outlay and maintenance,—thus:

- o to s Outlay and maintenance
  - o Purchase of real estate
  - p Erection of structures

## THE SPRINGFIELD SURVEY

- q Equipment and tools
- r Materials and parts
- s Repairs by contract or open order

These groups could then be further classified to advantage. To illustrate, *q*, equipment and tools, would be broken up into parts as follows:

- q Equipment and tools
- q 1 Furniture and fittings
- q 2 Machinery
- q 3 Hand tools
- q 4 Farm and garden implements
- q 5 Etc.

Each item or group of items would have its code letter or number. Then "furniture" would always have as part of its code number the letter *q* followed by the figure 1. If the furniture, for instance, is for the clerk's office, its code number will be *4 q 1*; if for the supervisors', *1 q 1*. By taking all the items of *q 1*, the total of furniture and fittings to be purchased for the county would be obtained. All items with the numeral 3 preceding the code letter would indicate expenditures of the treasurer; and so on.

Such grouping would be standard and would enable comparisons with other standard budgets. By totaling the "personal service" items for the whole budget, for example, one could quickly find out what that service costs the county as a whole and to what extent the cost is larger or smaller than formerly.

In making up the budget it is not desirable nor necessary that the less important and more detailed estimates be considered more than of advisory force; the administrative officer need only be held to strict compliance with the larger budget totals. This meets the very practical objection that such an official must be allowed some discretion; but it compels him to plan ahead, to have reasons for deviations, and it guides him in keeping within his larger totals. Suggestions regarding budget details and the steps to be taken in formulating the budget are outlined in Appendix A on pages 149 and 150.

## CITY AND COUNTY ADMINISTRATION

### ACCOUNTING SYSTEM NEEDED

In contrast with the city's method, the county account-keeping was very deficient. No administrative costs nor results were shown by it, and no comparisons of different years to discover tendencies in the county work were possible. Indeed, except for the creation of the office of auditor at the end of 1912, which has led to certain improvements, the situation in the main had changed very little from what it was in 1912 when investigated by O. R. Martin, of the University of Illinois. A paragraph from Mr. Martin's report ran as follows:

No central set of books for the business of the county as a whole is to be found and such books as there are are kept on the single entry basis. The county treasurer has a cash book, a duplicate of which is kept in the office of the county clerk. This, and a register of the county warrants kept in the county clerk's office, constitute the most comprehensive records, but they are by no means satisfactory for the purpose of presenting, in a complete manner, the financial business of the county. Each officer keeps a number of records and accounts which relate directly to the work of his office, but these are nowhere brought together to show their relation.\*

One great weakness in the present situation, and an obstacle to a more unified accounting system, is the fact that there are at least two different fiscal years observed in the county. The fiscal year for the supervisors begins on September 1, while that of the other county officers begins on December 1. The supervisors take office in April, thus introducing another complication into the situation, and in fact making three county "years" observed by different officers. The situation is still further complicated by the fact that the fees received in some of the offices constitute a large part of their income. The county clerk, circuit clerk, probate clerk, county treasurer, recorder, and sheriff pay the salaries of their offices and office expenses out of fees received for services rendered. The excess of fees over expenses is then turned over to the county. The fees of the last half-year are not paid to the county treasurer until after

\* From a statement discussing the receipts and expenditures of Sangamon and Piatt counties, which is included in the Report of the Joint Legislative Committee of the 47th Illinois General Assembly, page 185.

## THE SPRINGFIELD SURVEY

December 1; that is, not until after the end of the fiscal year of the officers who have collected them. Fees of the last half-year in excess of expenses then show on the treasurer's accounts for the following year; and so it becomes difficult to prepare an annual statement for either fiscal year. The solution would be to have all county officials use the same fiscal year; and to have these excess fees put into the fiscal year in which they were collected, no matter when they are turned over to the treasurer.

Indeed, other changes in the methods of handling fees would be desirable. For it is seen from the account above that each office conducts a little independent financial system of its own, and that its total receipts and expenditures are not co-ordinated with those of the whole budget, nor are they subject to sufficient general county control. The account-keeping should be so changed as to include in the record all these transactions which involve fees.

The county auditor has been preparing annual statements of county finances beginning with the year which closed on November 30, 1913. The examination of these showed them to be as good a summing-up of the accounts as was possible with the accounting system in its present condition. At best it is very inadequate, but cannot be greatly improved until the county account-keeping is thoroughly overhauled and reorganized.

### PURCHASING BY THE COUNTY AUDITOR

The office of county auditor was established at the end of 1912. Although in the establishment of this office the auditor was given but limited powers, the office was clearly a step in the right direction. His duties as defined by the law are: auditing claims and recommending their payment or rejection; collecting statistical information; the approving of all orders for supplies before the order is placed; keeping a record of county contracts; and reporting quarterly all fees due the county from county offices and officers.

He also does some purchasing of supplies. The great differences among prices paid for the same or similar commodities bought by different county officials in the past have argued



## CITY AND COUNTY ADMINISTRATION

forcibly for a central bureau or office, such as the auditor's, where such buying can receive special attention.

The purchasing already done by the auditor has meant considerable saving to the county. One rough estimate has fixed the saving at \$2000 a year, this saving having been made on only a small proportion of all the buying done for the county. The custom of having supervisors and others make purchases without written orders has to a large extent been broken up. The possibilities of the office have not, however, been realized by the public as yet. Until some of the handicaps under which it works, notably the poor account-keeping of the county, are removed and until more power over inventories of county officers, over the making of the budget, and over county purchasing is given the auditor, the greatest usefulness of the office and the largest economies that can be effected through such centralizing of purchasing will not be realized.

## PAYMENT OF COUNTY CLAIMS

The methods followed in paying claims against the county are very much like those followed in the city and are open to the same objection. Bills must be sworn to, signed for at the county clerk's office, and countersigned by the county treasurer before they are paid. In addition, county bills are paid only quarterly. The practice is unbusiness-like, and as soon as the necessary amendments to the law are obtained, a system substantially the same as that suggested for the city of Springfield should be installed.\*

## COUNTY REPORTS AND PUBLICITY

Finally, Sangamon County publishes no annual reports that are in such form as to give citizens any clear idea of the county activities of the year, their costs, and the general status of county matters. Indeed, except for the auditor's statement, which is limited by the deficiencies in the county accounting system, practically no reports at all are issued. The situation urgently calls for a change. The public must be informed upon public matters. The issuance of readable annual reports, with the

\* See pages 29 and 30.

## THE SPRINGFIELD SURVEY

facts explained and so grouped as to be easily understood, is essential to the intelligent participation of the public in their government, and is necessary if officials are to be held to the full performance of their duties.

### SUMMARY

The governing bodies in Sangamon County are the board of 47 supervisors and a large number of elected officers. With several candidates running for most of the offices, the ballot is unwisely long and confusing. A county commission of three or five members elected to take charge of definite functions is recommended in place of the board of supervisors. Administrative officers should then be appointed by the commission. Another advance step would be the elimination of considerations of national politics from county elections. The issues are local and they should not be complicated by the introduction of questions having no local bearings.

County officers are not subject to, nor protected by, civil service regulations. Such regulations are needed quite as much as they are in the city. A good civil law should be drawn up and adopted as soon as the other necessary legislative changes can be made.

Sangamon County has no real budget. The estimates, which are used in making the tax levy, lack the chief essentials of a proper budget. Their use is only a makeshift. A budget prepared under standard classifications and accompanied by proper budget-accounting and control that would cover all expenditures, including those of offices operated on a fee basis, is recommended. Legal difficulties which may need to be worked out can be obviated in the mean time by preparing and using an informal working budget. A detailed classification for the county budget is suggested.

The account-keeping of the county, in contrast with that of the city, was very deficient. One cause is the overlapping of the fiscal years used by different county officers. The account-keeping needs to be thoroughly reorganized.

The county auditor has been doing some efficient county purchasing. More power over purchasing should be given to him.

## CITY AND COUNTY ADMINISTRATION

The methods used in paying claims against the county are unbusiness-like; a system like that suggested for the city is recommended.

Sangamon County publishes no annual reports that are easily understood by the public. Readable, well-classified annual reports are recommended.



## APPENDICES



## APPENDIX A

### STEPS SUGGESTED FOR THE FORMULATION OF THE CITY OR COUNTY BUDGET

- I Each department and office should prepare estimates of necessary expenditure for the coming year. The sheet should show the following:
  - 1 PERSONAL SERVICES NEEDED
    - a *Officers*: (1) title of office, (2) number requested, (3) time of employment, (4) salary, (5) total
    - b *Employees*: (1) nature of work, (2) number requested, (3) day's work needed, (4) wages, (5) total
  - 2 NEEDS OTHER THAN PERSONAL SERVICES
    - a Detail of article or contract requested
    - b Number requested
    - c Estimated cost
    - d Outlay and maintenance
    - e Debt service
    - f Total
  - 3 LAST YEAR'S EXPENDITURES. Statement showing outlay for each purpose indicated in 1 and 2 above for the 12 months prior to the new budget year
  - 4 REMARKS. Why new needs are different from services or items of expenditure in the previous 12 months. What savings or better results will ensue if requests are granted, etc.
- II Each list of expected needs should go to commissioners in charge of the departments concerned; the commissioners by conference within each department should then perfect the estimates and turn them over to the comptroller.
- III The comptroller should tabulate and combine the lists into a first tentative draft, including his own suggestions. He

## CITY AND COUNTY ADMINISTRATION

should also prepare a schedule of estimated revenues for the period. He should include on his tentative budget a copy of all facts shown on the departmental lists of needs and estimates of costs, plus the following:

- 1 A comparison of each item on the new lists with similar items on the adopted budget of the prior year; i. e., number of employes, time of employment, wages allowed, total, etc., from the last budget
  - 2 Total expenditure for each item (or service) for each of two preceding years
  - 3 Pertinent suggestions by the comptroller on all facts and items shown by departmental estimates, with totals. In addition, the comptroller should leave blank spaces where increases or decreases can be filled in by the commission in determining the final budget; i. e., a blank for each fact or item, such as number of employes, wages, total, etc.
- IV The commission, with the clerical assistance of the comptroller's office, should prepare a tentative budget (as distinguished from the first tentative draft). Hearings should then be given to officers and superintendents, for their information will supplement that of the commissioner in charge.
- V The tentative budget should then be published, at least in summary, and at least two public hearings should be provided for before the budget is adopted.
- VI To aid in intelligent discussion, items which will make up the "working budget" suggested on page 20 should be separately marked and tabulated.
- VII After taking all suggestions made by department officials and by the public into consideration, the commission should decide upon a final budget.



## APPENDIX B

### CONCLUSIONS OF SPECIAL TAX COMMISSION OF THE STATE OF ILLINOIS, 1910

Chapter XI of a Report on the Taxation and Revenue System of Illinois, prepared for the 1910 Special Tax Commission of the State of Illinois by Professor John A. Fairlie, summarizes the conclusions of the Commission. The chapter is reproduced here in full—as follows:

1. That the aggregate assessed valuation of property for purposes of taxation is only a small part of the true value of tangible taxable property in the state; that the assessed valuation is much less than the fractional part of true value provided for in the revenue law; and that the inevitable result of such undervaluations is not only an unnecessary increase in the nominal tax rate, but also marked inequalities in assessments as between different classes of property and persons.

2. The most serious difficulties appear in the assessment of intangible personal property, such as moneys and credits, mortgages, bonds and stocks. The assessment of such holdings on the same basis as tangible property appears to be impossible; while, if possible, the result would be highly unjust and inequitable. The experience of other states shows that special taxes on corporations, and on mortgages and other kinds of intangible holdings are more equitable and, at the same time, more successful as means of raising public revenue.

3. Large inequalities are also evident in the assessment of tangible personal property, amounting practically to considerable exemptions at the discretion of assessing officers.

4. Even in regard to real property, there are considerable undervaluations and inequalities in the basis of assessment.

5. Considerable criticism has been made of the local assessment machinery in counties under township organization, and also some criticism of the county boards of review. Important changes should be made in the local administration of the revenue laws so as to secure more expert and more responsible officials, and to eliminate political and social influences.

## CITY AND COUNTY ADMINISTRATION

6. The State Board of Equalization is a clumsy and ineffective body, much too large for either the work of equalization or the valuation of railroad property or capital stock. It has ceased to attempt any equalization of local assessments; under its valuations of railroad property, the taxes paid by railroads have been declining in proportion to railroad earnings and in comparison with the total taxes levied in the state, while the assessment of capital stock of corporations has been practically limited to a small number of public service corporations in Cook County.

7. The study of tax officials in other states shows the tendency towards small permanent tax commissions, with large powers of supervision over local tax officials and important powers of assessing the property of public service corporations, and that such commissions have proven effective in bringing about large improvements in the administration of the tax laws.

8. The aggregate of property taxes in the state of Illinois from 1860 to 1904 has not increased at any greater rate than the estimated true value of property. State and county taxes since 1870 have increased much less than the increase in the true value of property; but city, school, and other local taxes have been rapidly increasing. The total state revenue of Illinois is much less than that of other states with which it ranks in population, wealth, and industrial development.

9. Special taxes for state purposes have been developed to some extent in Illinois in recent years. But the corporation fees and inheritance tax produce only a small revenue in comparison with the revenue from corporation taxes, inheritance taxes, etc. in the large Eastern states.

10. There are numerous minor license, inspection, and examination fees, which produce little or no net revenue, and some of which are not included in the accounts of the state treasurer or auditor.

## INDEX



## INDEX

- ACCOUNTING:** annual audit, 25-26, 32; Martin on county deficiencies, 141; special funds and taxes, 120-132; system commended, 25, 32
- ACCOUNTS AND FINANCE:** city purchasing, 27-28, 120-132; commission government, 9; cost records, 23-25; county methods inefficient, 141-142; expert advice, 22-23; inventories, 27; long-time bonds, 123-128, 131; publicity reports, 31-32, 35-36; system in Springfield, 25-26, 35-36, 120 et seq.; tax warrants, 121-123
- ASSESSMENT:** buildings and improvements, 106-108, 119, 128-131; centralization urged, 100; handling special funds, 120-132; improvements, procedure for, 128-132; land value maps, 109, 110; levying tax rates, 111-113; 119, 120; personal property, 108-111, 119; property values, 96-111; publicity of, 108, 109, 119; Somers system, 102-108, 118; state board of equalization, 101, 118; tax assessors, 99-100, 118; undervaluation, 97-99, 108, 110, 118
- AYRES, LEONARD P.:** The Public Schools of Springfield, 96
- BALLOT:** recommendations to simplify, 133-135, 144; short ballot an asset, 12-13, 33
- BONDS:** outstanding, table of, 123-124; purposes of issue, 124-128, 131; retirement fund, 125, 131, 132; "riot" bonds, 124, 125; water works purchase, 124, 131
- BORROWING:** for city's current expenses, 120-123, 131; issue of warrants, 120-123; tax warrants, 121-122, 131
- BUDGET:** centralization plan, 16-19; classification, 21; for city purposes, 17-20, 34, 146; monthly report, 21; program in Springfield, 19-21; Sangamon County needs, 135-140; suggested classification, 139-140, 146-147
- BUREAU OF BUILDINGS:** efficiency of, 50, 93; fire inspection, 50; restrictions and zones, 50-51
- CEMETERY:** administrative board, 11, 33, 87; auditor's report, 87; improvements suggested, 88, 95
- CENTRALIZATION:** city budget, 17-21, 34; government plan, 16-17; need of, in Springfield, 22-25, 35; purchasing by auditor, 143
- CITY GOVERNMENT, CURRENT INCOME OF:** assessment officials, 99-101, 118; buildings and improvements assessed, 106-107, 118; collection fees, 116-117; corporate revenue, 96, 118; depositories, 116, 119; Fairlie on, 97, 98; licenses and revenue, 96, 117-118, 119; lot valuations, 103-106, 109, 110, 118; personal-property tax, 108-111, 119; property values, assessment of, 96-111, 118; publicity methods, 108-109, 119; public-school revenues, 96, 115; real estate values, 97-99, 102-105, 118; Somers system, 102-108, 118; state board of equalization, 101, 118; State Canvassing Board, 111; Taxation and Revenue System of Illinois, 97, 98, 149; taxes and collections, 96, 111-117, 119; tax rates determined, 96, 111-113, 119; Town and County Government, 97; transfer of funds, 114-116, 119; undervaluation, 97-99, 108, 110, 118, 119

## INDEX

- CITY MANAGER:** government plan, 12, 33
- CIVIL SERVICE:** appointment of members, 13-14; dismissals, 14-16; efficiency records, 14; examinations, 14; police and firemen, 15; regulations for county officers, 135
- CLAIMS:** payment of, 29-30, 35; suggestions, 29
- COMMISSION GOVERNMENT:** board of education, 10, 13, 16, 33; budget and taxes, 17-22, 25-26, 34-36; centralization, 16-17, 22; city-manager plan, 12, 33; civil service regulations, 13-16, 33-34; cost records, 23-36; duties of officers, 9-10, 13, 23, 31-33; elections, 11-12, 33, 90; expert accounting, 22-36; health and safety, 9, 11, 17, 33; information and complaints, 30-33; inventories, 27, 35; organization and administration, 9-36; park board, 10, 16, 18, 33; payment of claims, 29-30, 35; purchasing, 27-28, 35; reports and publicity, 31-32, 34, 36; short ballot, 12, 33, 90; streets and public improvements, 9, 24, 33, 35
- COMMUNITY SERVICE:** government survey, 2-8; how promoted, 1-5; public indifference, 1-2
- COMPLAINTS:** service bureaus, 30-31, 36
- CORPORATE REVENUE:** city taxes, 96, 118, 120; licenses, 117, 119
- COST DATA:** economics of, 23, 24; in water department, 23; need of, 35
- DIVISIONS OF SURVEY:** public administration, 4
- ELECTIONS:** ballot for county, 133-135, 144; city-manager plan, 12, 33; commissioners, 11, 13, 33; constitutional changes proposed, 90, 95; frequency of special, 89; polling districts, 90-91; reserve ballots, 91; short ballot, 12-13, 33; use of schools for, 91. See also *Voters*
- EQUALIZATION BOARD:** assessment duties, 101, 118; tax commission urged, 101; Taxation and Revenue System report, 149
- FAIRLIE, PROF. JOHN A.:** Taxation and Revenue System of Illinois, 97, 98, 148-149; Town and County Government, 97
- FIRE DEPARTMENT:** auto-driven apparatus, 39-41, 92; engines and equipment, 39-42; hydrants, 44; instructing members, 45-46; insurance costs, 48-49; losses, 37-38, 48, 91; organization and operation, 38-39, 91; prevention and causes, 37, 47; records, 46-47, 91, 92; sprinklers, 45, 92; system of alarm, 42-43, 92; water supply, 43-44, 92
- GAS-INSPECTION:** meter tests, 64-65, 93; State Utilities Commission, 64, 65
- GOVERNMENT:** efficiency survey, 1-8; election of commissioners, 11; public indifference, 1-2; taxes, and returns from, 2, 4. See also *City Government*; *Commission Government*; *Sangamon County Government*
- HEALTH AND SAFETY, PUBLIC:** commission government for, 9, 11, 17; tax levies, 17
- INCOME.** See *City Government, Current Income of*
- INVENTORIES:** need of records, 27, 35
- LAND-VALUE MAPS:** front-foot valuations, 109, 110
- LAW DEPARTMENT:** centralization plan, 67-68, 94
- LIBRARY, PUBLIC:** board for, 10, 13, 16, 18
- LICENSES:** retail liquor, 96, 117, 118; revenue from, 96, 117-118, 119
- LIGHTING PLANT:** consolidation plan, 61; private consumers, 62; service and equipment, 61, 93; street-lighting, 63, 93

## INDEX

- MALLALIEU, WILBUR F.:** fire causes analyzed, 37
- MARTIN, O. R.:** account-keeping report, 141
- PARKS:** board members, 10; tax limit, 16, 18, 22
- POPULATION:** census reports, 6; illiterates, 8; proportion of voters, 6-8
- PUBLICITY:** annual reports recommended, 143, 144; effectiveness of, 108-110, 119; land-value maps, 109, 110; reports and account-keeping, 31-32, 36, 143, 145
- PUBLIC PROPERTY:** bond issues and assessments, 120-132; civil service regulations, 13-16; commission government for, 9, 16; cost data, 23-28; inventories, 27. See also *Streets and Public Improvements*
- PUBLIC SCHOOLS:** board of education, 10, 13; budgets and tax rates, 17-19, 112; Public Schools of Springfield, 96; transfer of tax funds, 115
- PURCHASING:** economy methods in, 27-28; municipal bureaus for, 28, 35; special funds and bond issues, 120-132; supplies for county, 142-143, 144
- REAL ESTATE:** corner-lot values, 104-105; income and assessments, 96-116, 118-119, 120-132; land-value maps, 109-110; publicity of assessments, 108; valuations, 97-99, 102-105, 109-110, 118
- RECEIPT AND EXPENDITURE:** statement of, 26, 35; suggestions for budget, 146-147
- SANGAMON COUNTY GOVERNMENT:** accounting, 141-143, 144; annual reports needed, 143, 145; auditor's duties, 142-143, 144; budget, purposes of tax levy, 135-140, 144; civil service, 135, 144; claims, payment of, 143, 145; long ballot, recommendations for, 133-135; organization, 133, 144; purchasing supplies, 142, 143
- SERVICE RECORDS:** county reports recommended, 143, 145; promote efficiency, 23, 24, 25; suggestions for, 23
- SHORT BALLOT:** appointment system, 12-13; candidates' ticket, 33
- SINKING FUNDS:** bond-retirement, 125, 131, 132; interest rates, 124-126, 130, 131; management of, 126-128, 132
- SOMERS SYSTEM:** assessment tables, 102-110; lot-valuations, 102-108, 118
- SPECIAL TAX COMMISSION:** summary of conclusions, 148-149
- STATE CANVASSING BOARD:** assessment of personal property, 108-111, 119; tax amendment supported by, 111
- STATISTICS:** government service, 6; population, 6-7; scope of survey, 3-8; voters, 6-8
- STREETS AND PUBLIC IMPROVEMENTS:** asphalt paving, 70; brick paving, 69-70, 74; centralization of power, 16-19; city bonds and warrants, 120-132; concrete, 71-72, 94; cost data, 23-28, 35; dirt roads, 80-82; government by commission, 9; grades and crossings, 73, 77, 82, 94; macadam, 71, 73-74; openings and replacements, 75-76; pavement mileage, 68; paving material, 68-74; refuse disposal, 86-87, 95; repairing pavements, 74-75; sidewalks, 82-84; street-cleaning, 78-80; tree-care, 84-86, 95; wood-block paving, 73, 94
- SURVEY:** government efficiency, 1-8; lines of presentation, 4-5; method, 5; purpose, 2-3; summary and reports, 4-5
- SURVEY EXHIBITION,** 5
- TAXES:** anticipation tax-warrants, 120-123, 131; cost of government, 2; limit fixed by legislature, 16-18, 34; long-time bonds, 123-128; returns from city, 2, 4, 5, 17; single budget needed, 17-21; Special Tax Commission, conclusions of, 148-149; street-and-bridge tax, 26. See also *City Government, Current Income of*

## INDEX

**TAX WARRANTS:** anticipation funds, 120, 121, 131; interest paid by city, 121; losses through, 121-122

**UNDERVALUATION:** Fairlie on, 98; personality, 110, 119; real estate assessments, 97-99, 118

**VALUATIONS:** corner lots, 104-106; land-value maps, 109, 110; real estate assessment, 97-99, 102-108, 112-113, 118, 119; Somers system, 102-108, 118; undervaluation, 97-99, 108, 110, 118, 119

**VOTERS:** census reports, 6-8; foreign born, 6-8; Negroes, 6-8; polling districts, 90-91; Woman Suffrage Law of 1913, 7

**WATER DEPARTMENT:** consumption and meters, 55, 93; equipment costs, 52, 57; improvements needed, 52-54, 60, 93; municipal ownership, 57; operation, 51, 60; rates, 56, 57-59, 93; Schneider on, 51

**WEIGHTS AND MEASURES:** inadequate laws, 66, 94; state bureau needed, 66-67

**WOMAN SUFFRAGE LAW OF 1913,** 7