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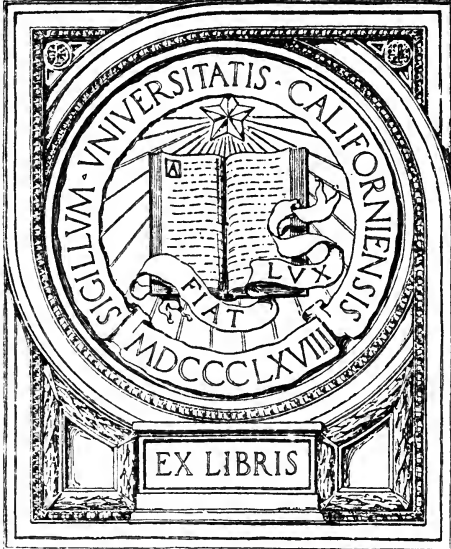
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**REAL ESTATE
AND ITS TAXATION IN
PHILADELPHIA**

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**QUESTIONS AND ANSWERS RELATING
TO A PROPOSED SYSTEM
OF ASSESSMENT**



**PUBLISHED BY THE MAYOR
1913**



Arthur Edwin Post

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AND ITS TAXATION IN
PHILADELPHIA

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TO A PROPOSED SYSTEM
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TO VINDI
AIRBORNE

Foreword

The subject of this pamphlet is of vital importance to every man, woman and child in Philadelphia. It matters little whether the particular suggestions set forth in the following pages are wise or unwise. The urgent matter is that tax-payers, real estate men, builders, members of building and loan associations, and, indeed, all thoughtful citizens, should familiarize themselves with this subject; look into it carefully, each from his own point of view; and discuss it in public and private. If this is done a proper solution of our present difficulties will soon be forthcoming. To aid in such intelligent study and discussion, I gladly take the opportunity of giving publicity to what I know to be a careful, conscientious and informing study of methods of assessing real estate for purposes of taxation.

I appreciate very deeply the public service rendered by Messrs. Arthur Edwin Post and Robert Dunning Dripps in the preparation of this pamphlet.

RUDOLPH BLANKENBURG,
Mayor.

May 26, 1913.

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Preface

AMONG the more important sources of city revenue which were considered and reported upon by the Advisory Committee on Municipal Finance, appointed by joint resolution of Councils October 4, 1912, is the subject of real-estate taxes and their assessment. At the numerous meetings of this committee much attention was given to methods of assessing real estate in this and other cities, and to the question as to whether this city's revenue might be increased by the introduction of improved methods of real estate assessment. One of the direct results of the work of this committee has been the preparation of this pamphlet, and the final conclusions and recommendations of the committee are included as an appendix.

The authors have attempted in this "primer" on the assessment and taxation of real estate to explain in simple, yet comprehensive, terms, some of the details embraced in a system for assessing realty, which has been suggested for adoption in Philadelphia. As a result of the recent consideration and discussion of the present method of assessment, a more or less general agreement seems to exist that certain changes would be desirable. The proposed system of assessment would undoubtedly better the situation, and in order that those who pay taxes and those who administer the tax laws may understand its principal features, this series of questions and answers has been prepared. It is hoped that many of the technical points in regard to the question of assessing real estate may be clarified within the following pages. In some instances the authors have inserted questions and answers setting forth principles and methods in vogue in other cities, the wisdom of which may well be questioned. In every such case, however, the information given was deemed of sufficient interest and importance to warrant its inclusion.

In the preparation of this pamphlet the assistance rendered by Lawson Purdy, President of the Department of Taxes and Assessments of the city of New York, has been invaluable. While Mr. Purdy should not be held accountable for any statements herein contained, as it was thought unreasonable to burden him with reading so lengthy a manuscript, the fact remains that without him this pamphlet would never have been prepared. Much valuable material was also found in the reports of the National and International Tax Associations, the reports of various state commissions and conferences on taxation, the report of the hearings before the congressional committee on the assessment and taxation of real estate in the District of Columbia, and from addresses and articles by James E. Boyle, Henry Bruère, John A. Dix, E. W. Doty, Clarence O. Gardner, Edward L. Heydecker, John H. MacCracken, Charles E. Merriam, Raymond V. Phelan, John B. Phillips, L. G. Powers, C. Linn Seiler, Edwin R. A. Seligman, Solomon Wolff, and others. Many verbatim quotations have been made from these documents, and grateful acknowledgment is herewith extended to all those authors who have helped so considerably, yet unconsciously, in the formation of these questions and answers.

ROBERT D. DRIPPS
ARTHUR E. POST

PHILADELPHIA, PA., May 24, 1913.

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**Real Estate and Its Taxation in
Philadelphia**

Introduction

I. MOST DEPENDABLE SUBJECT FOR PERMANENT TAXATION

1. What is the most dependable subject for permanent taxation?

Land, whether improved or unimproved, both classes being included in the general term "real estate."

2. Why?

Because, being tangible, an assessor can see it, and being relatively immovable, it cannot run away. The tax on real estate is probably, on the whole, the most equitable in its distribution, the simplest in its administration, and the most productive in proportion to the conscious sacrifice involved, and carries with it fewer evil consequences than any tax system hitherto devised.

II. UNFAIR OR INEQUITABLE TAXATION

3. What is meant by unfair or inequitable taxation of real estate?

Taxation of real estate is unfair or inequitable if one taxpayer is made to pay a proportionately larger tax on real estate belonging to him than some other taxpayer has to pay on real estate subject to the same tax, due allowance being made for the difference in value of the two properties.

4. What is generally the cause of unfair or inequitable taxation?

The cause of unfair or inequitable taxation is usually defective methods of assessment, which make it almost impossible for an assessor to arrive at the proper valuation of certain large classes of real estate. The tools placed at the disposal of Philadelphia assessors today may enable them to deal intelligently with small homesteads, most of which are now assessed at full value; they are wholly inadequate, however, when it comes to large and costly buildings. In order to keep on the safe side, our

assessors tend to assess these large and costly buildings below their actual value. Any reasonably intelligent man, with a little knowledge of the subject, can estimate with some degree of correctness the value of the laborer's cottage or of the modest dwelling, costing say, \$5000; but where can the assessor be found, under the system now obtaining in Philadelphia, who can tell how much it costs to erect a modern office building, a great hotel, a palatial residence, or other like structure? If an assessor cannot compute, or ascertain with some degree of certainty, the approximate cost of constructing such a building, how can he properly assess such a building?

III. EQUALIZATION—THE GOAL

5. What is the goal toward which the most approved methods of property assessment must strive?

The goal is neither the increase nor decrease of revenue to the city, but the equalization of assessments as between man and man.

IV. PHILADELPHIA ASSESSMENT METHODS

6. How is real estate assessed in Philadelphia at the present time—*i. e.*, what departmental organization is provided to do the work and what methods of assessment are employed?

The assessment of real estate in Philadelphia is performed by a body known as the Board of Revision of Taxes, consisting of three members appointed by the judges of the Courts of Common Pleas, under an Act of Assembly. It is legally a county body, and has no direct responsibility to any one. It has no direct administrative connection with the city government as such, and neither the mayor, city councils, nor the city controller can legally affect its administration or policy.

The city is divided into thirty-five assessment districts, and two assessors for each district are appointed by the Board of Revision. Assessors are furnished with books called "Street blotters" on May 15th of each year, and the assessment of all property in the city is completed by August 15th.

Assessments are supposed to be made at 100 per cent. fair cash valuation, *i. e.*, at what assessors believe properties would sell for at a bona fide sale after full public notice. In determining values, the assessors are supposed to take into account recent sale values in the particular neighborhood, the previous years' assessments on such properties, improvements made, and any information obtainable from mortgage transactions and other records in the office of the recorder of deeds. In some cases the frontage determines the value; in other cases the area; in others, the question of relative location. In short, the judgment of the assessor, supported by any available information, is the basis of the original assessment. The assessors, in addition to tabulating the value of each property, also record the street number, dimensions of property, kind of building, or other improvements, owner's name, and transfers made in ownership since the last assessment. The Board of Revision then corrects errors in the returns, either on its own initiative or on application of taxpayers.

About November 1st a second assessment is made to correct former errors and include new buildings and improvements. Immediately thereafter the district records are rearranged by wards and copied into ward books, triplicate copies being made. The original of these is kept in the office of the Board of Revision and is open to public inspection. The two remaining copies are sent respectively to the receiver of taxes and the city controller. The ward records thus made out show in separate columns the assessed value of the realty and personalty, the dimensions of the property, street number, ward number, and owner's name. Since the assessment of personalty is so different in character from the assessment of realty, it is obvious that separate records would be desirable for recording this tax.

The Board is required by law to submit to city councils on or before the 1st day of November of each year, through the mayor, the figure of the total amount of assessed valuation of all taxable property within the city. This figure is used in determining the tax-rate for the succeeding year.

A Proposed System of Realty Assessment for Philadelphia

V. FULL VALUATION ASSESSMENTS

- 7. At what per cent. of its value should property be assessed for purposes of taxation?**

At true value, or 100 per cent., which has been defined in this city as the value at which a property would sell if sold, singly and alone, for cash, at a bona fide sale, after full public notice. In Washington true value is defined as the sum which a purchaser who wishes to buy and is not compelled to buy would give to a person who wishes to sell and is not compelled to sell. In theory, at least, the principle of true value assessment is already established in Philadelphia.

- 8. Where the law as in Pennsylvania fixes the standard of valuation for real estate at the price it would bring at bona fide sale after full public notice, has the assessor the legal right, in determining the value for purposes of taxation, to take into account the assessed valuation of other pieces of real estate in the neighborhood?**

Yes. The Supreme Court of Pennsylvania decided in 1909 (Coal Company, appellant *vs.* Luzerne County, 225 Penna., 267) that: "All real estate should be assessed at its actual market value, but it *must* be assessed at a uniform standard of value throughout the district, even if the valuation is below market value."

- 9. In determining values, what are some of the sources of information that assessors sometimes have to consider?**
1. The previous assessment for purposes of taxation.
 2. The consideration paid, as set forth in recorded deeds, etc.
 3. Amount loaned on mortgage secured thereon.

4. Valuations as sworn to in petitions to the Orphans' Court.
5. Valuations as sworn to in petitions to the Courts of Common Pleas.
6. Valuation placed on same in condemnation proceedings.
7. Valuations set forth as required by law in sworn statements made by corporations as to real estate owned by them.
8. Amount loaned on mortgage secured thereon by financial institutions allowed by law to lend only on a certain fixed percentage of the real value.
9. Amount offered in good faith for the same.
10. The rent paid therefor.
11. Value placed thereon by owner.
12. Value placed thereon by seller.
13. Value placed thereon by real-estate experts.
14. Information in possession of title insurance companies.
15. Volunteer information given to the assessors by persons alleging special information on this subject.
16. The so-called "city services," of which said real estate has the benefit.
17. The amount and character of traffic in front of or near the same.
18. The nearness of said real estate to trolley lines, elevated and subway lines, railroad stations, etc.
19. The character of the neighborhood in which said real estate is situated.
20. Recent or contemplated improvements in the neighborhood.
21. Whether or not undesirable elements are present in the neighborhood.
22. The grade of the land. How this fits into the city plan.
23. Whether or not said real estate is a corner property.
24. If not, whether it has access to two streets, one in front and one in rear thereof.
25. Whether or not it is rented, occupied by owner, or empty.
26. Whether or not it has a water-front.

27. Whether or not it has or is in a position to obtain a railroad siding.
28. The cost of construction of buildings thereon, as indicated in the records of the bureau of building inspection.
29. Information as to the value of the buildings in the possession of the fire-underwriters.
30. The value placed upon the buildings by fire-insurance experts.
31. The value placed upon the buildings by builders and contractors.
32. Whether or not the buildings are in proper repair.
33. Probable cost of construction of buildings by cubic feet.
34. Probable cost of construction of buildings by square feet of floor space.
35. Whether or not the possible uses of the buildings are suited to the neighborhood in which they are located.
36. Whether or not the property is so situated as to be practically necessary to the municipality or to some company or individual other than the owner for a contemplated improvement.
37. The value of the adjacent property.
38. The value of properties of practically the same character situated in practically the same sort of neighborhood elsewhere in the city.
39. Personal inspection by the individual assessor.
40. Newspaper reports as to sales, rental, etc.
41. Testimony given before the Board of Revision on appeals.

VI. SEPARATE ASSESSMENTS OF LAND AND IMPROVEMENTS

10. What is meant by a separate assessment of—(1) land and (2) improvements?

By a separate assessment of land and improvements is meant a determination of land values independent of the values of the improvements thereon, and recording these values separately on the assessment records. Every well-considered assessment of a lot with a building standing

upon it is the result of two distinct mental operations, namely the assessment of the land and the assessment of the building.

11. Where has the separate assessment of land and improvements been tried?

Separate assessment of land and improvements has been practised in New York city for ten years, and in Washington for seventy-five years. Many other cities now do likewise, including Cleveland, Ohio; East St. Louis, Springfield, and Joliet, Ill.; Houston, Texas; and several cities in Canada. All the cities of New York State have been making their assessments in this way since 1911, and also the cities of New Jersey and Massachusetts. It obtained in California twenty-five years ago. It was found, long before it became a regular method in so many places, that it had been the ordinary custom of many assessors, who had learned by experience that it is much easier to make an accurate assessment if they put on their books the value of the land first and the value of the improvements afterward.

12. What have been the results?

In all cities where the separate assessment of land and improvements has been tried, it has received the general indorsement of real estate, business, and professional men. It has established standards of value for sale and rental operations, and no better method for securing fair and even assessments has yet been devised. The separation of land and improvement values is both a stimulus to the assessor to do careful work and a check upon him to prevent dishonest work, because it enables taxpayers to study intelligently methods of assessment and compare results as between adjoining properties. One cannot examine an assessment roll or map and get anything out of it unless the land value is separated from that of the buildings and improvements. By studying land values and disregarding the value of the improvements, a good method is provided for comparing land values by sections and determining whether there is any inequality between the assessments of one section as compared with those of another section.

- 13. What are the different systems of recording the separate assessment of land and improvement values on the assessors' books?**

There are two systems used to show separately the values of land and improvements. One system is to use assessment records provided with three columns, for showing, respectively, first, the land value; second, the improvement value; and third, the total value of the property. A second system provides for only two columns in the assessment records, showing, first, the land value, and second, the total value of the property.

- 14. Where is the three-column system used?**

In Maine, New Jersey, and Massachusetts.

- 15. Where is the two-column system used?**

The two-column system is required by the laws of New York for all cities in the State.

- 16. What advantage has the two-column over the three-column system?**

The assessor judging values should have his attention concentrated first on the main element of value, the land. Then his attention should be concentrated on what the total is worth, land plus improvement, and not upon the building itself. If a separate column is provided for assessing the building, the assessor has his attention attracted to this one feature, and the tendency is to value a building which is obsolete, or which has depreciated by age, as if it had not so depreciated. The assessor is not likely to do so, however, where his attention is directed to the two questions: What is the land worth? and What is the land plus the building worth?

The two-column system has, therefore, the valuable psychologic effect of forcing the assessor to recognize the fact that the value of a building is simply the difference between the value of the land with the building (or the total value) and what the same parcel of land would be worth if the building were removed.

- 17. How can an assessor arrive at the separate value of the land apart from that of the buildings thereon?**

First, there may be in the immediate neighborhood one or more unimproved parcels of land. The value of such

parcels can readily be ascertained by methods well understood by most assessors. In view of the close relation between the values of parcels of land situated in the same neighborhood, such information is of great aid in arriving at the land value of improved parcels of land situated nearby. Second, even if the entire neighborhood is built up, there is almost certain to be one or more lots of ground recently sold at known prices and thereafter improved at a cost more or less accurately ascertainable. Such information also furnishes a clue to the land value of improved land in the neighborhood. Third, every built-up neighborhood contains a fairly large number of buildings, the construction cost of which can be ascertained with more or less accuracy; after this is known, the average assessor can make proper allowance for depreciation, etc., and so arrive at the present values of such buildings. By deducting these values from the total assessed valuations of the various properties as determined by recent sales, mortgages, rentals, etc., the land values can be rather definitely fixed. These are not the only ways in which the land value, as distinct from that of the improvements thereon, may be determined, but they serve as illustrations.

18. What is meant by "plottage" and how is the assessment of land affected thereby?

Where a number of adjoining lots of land belonging to one owner can be utilized to better advantage under single ownership than as separate lots, an addition is sometimes made to the assessed valuation of the lots in question for what is called "plottage."

19. What are some of the things which an assessor should bear in mind in determining the value of a building apart from that of the land upon which the building stands?

When a building is suitable for the site and not depreciated by age, its value is generally the cost of reproduction. It can never be more. If it is unsuitable to the site or depreciated by age, the average depreciation in value can generally be determined by a consideration of the rental and by reference to the tables prepared by architects, engineers, and accountants, which show the average depreciation of various classes of buildings.

20. Does the adoption of the plan to state separately the value of land and the value of improvements have a tendency either to increase or to decrease the assessed value of an average piece of real estate?

The adoption of such a plan generally results in an increase in the assessed value of property. If the assessment was accurately made before and after the introduction of the proposed plan of assessment, it naturally follows that no change in valuation would result.

21. What may be said as to the legality of a separate assessment of land and improvements under the Pennsylvania law which requires assessors to assess real estate at what they believe it would bring at a bona fide sale after full public notice?

It is both legal and practical to so assess land and improvements, as may be illustrated by the following citation: "In some states it is required, and in all it is proper, even if not necessary, that the improvements should be valued separately from the land, although the two valuations are added together to fix the total assessment." (Cyclopedia of Law and Procedure, vol. 37, p. 1013, 1911.)

VII. ORGANIZATION OF DEPARTMENT

BOARD OF REVISION

22. What should be the qualifications of the members of the Board of Revision?

No department of the city government calls for broader judgment, greater experience, or more continuous attention than this department, and if the Board of Revision fairly and honestly performs its duty, it will see that the burden of maintaining the government is fairly and equitably distributed upon those who should be willing to bear the burden, and who, under the law, are required to bear it. This duty can be performed only by a Board of Revision composed of members who are thoroughly conversant with real-estate values and actuated by the highest ideals. The members of this Board should be qualified for such office either by the possession of expert knowledge, unusual technical ability, or wide business training. They

should be prohibited from holding any other municipal office or from engaging in any other business during their terms of office.

- 23. What objection may be raised regarding the method whereby the present members of the Board of Revision are appointed by the judges of the Courts of Common Pleas?**

This method of appointment leaves the members of the Board of Revision too far removed from popular control. The Board is neither directly responsible to the people, to the elected representatives of the people, nor even to the power that appoints them.

- 24. What is the objection to making them elective?**

It is desirable that as few positions as possible shall be elective, in order that the issues presented to voters shall be simple and the ballots not encumbered with multitudinous names. There is no more reason why the members of the Board of Revision should be elected by popular vote than there is for electing the directors of the city departments. If appointed by an elective official, like the mayor, responsibility is centered, and popular control will be secured at all times.

- 25. How should they be chosen in order to overcome the objections as stated?**

The members of the Board of Revision should be appointed by the mayor, subject to the approval of Select Council, as are the administrative heads of the city departments at present. They should also be subject to removal by him. Objection is sometimes made against giving the appointing power the option to remove at will any appointee, on the ground that certain positions are essentially non-political and appointment for a term of years frees the official from undue influence; but this system deprives the voters of control over their own officials by dividing responsibility, and it is the essence of popular government that the voters should at all times, or at frequent intervals, exercise effective control over all public servants. If the members of the Board of Revision are appointed as suggested, the people can always exercise an effective control over them through the mayor, who is an elective official.

26. How are the assessing authorities selected in some other large cities of this country?

Baltimore. The three members of the Appeal Tax Court are appointed by the mayor.

Boston. The seven members of the Board of Assessors are appointed by the mayor and are subject to the approval of the Civil Service Commission.

Chicago. The five members of the Board of Assessors are elected.

New York. The Board of the Department of Taxes and Assessments, consisting of seven members, is appointed by the mayor.

Pittsburgh. The three members of the Board of Assessment and Revision of Taxes of Allegheny County are appointed by the County Commissioners.

St. Louis. The Board of Assessors consists of a president, elected by the people, and twelve district assessors, appointed by the mayor.

So far as known there is no other city in the United States where the body corresponding to the Philadelphia Board of Revision is appointed by the judges. Such a method of appointment is both undemocratic and unAmerican. Its effect is not only bad on the Board of Revision, but, if possible, even worse on the judges themselves.

27. What should be the term of office of the members of the Board of Revision?

They should be appointed for a period of three years, one retiring each year, and should be eligible to reappointment. While there is no magic virtue in the term suggested, it is believed, on the whole, to be the most satisfactory.

ASSESSORS AND CLERKS

28. What should be the qualifications of assessors?

Assessors should be required to pass successfully a competitive civil-service examination designed to select men having a thorough knowledge of local real-estate conditions and a fair amount of judgment in determining

property valuations. They should give their entire time to their work and be engaged in no other business. Assessors should hold office during good behavior, and this in turn will give to the department a permanence of policy greatly to be desired.

29. How should assessors be chosen?

They should be appointed by the Board of Revision, after civil-service examination, and subject to removal for cause.

30. Would the adoption of the proposed system involve the supplanting of the present assessors by new men?

No. While it may be desirable to employ some one familiar with the new system to explain it to the local assessors, men thoroughly acquainted with realty values in Philadelphia would undoubtedly be most competent to apply the new system. It would be unnecessary and undesirable to supplant local assessors with new men from outside.

31. How should assessors be apportioned throughout the city?

The city should be divided into assessment districts, and no district should contain more than 10,000 parcels of real estate. In sparsely settled territory where the parcels of property are large, and in congested centers where the parcels are of irregular shape and values are high, the number of parcels in any one assessment district should not exceed 4000. One assessor should be assigned to each district. As a rule, assessors should serve continuously in the same district, becoming more and more familiar with its values and conditions. It is impossible for one man to be thoroughly familiar with values in more than a comparatively small section. It might, however, be desirable to provide occasionally for an interchange of assessors between districts, or, at any rate, to see to it that each assessor spends certain days in every year making the rounds with the assessor of another district.

32. Should an assessor's work be distributed uniformly throughout the year?

Assessors in Philadelphia are, to-day, employed by the year, and owing in part to the immense amount of clerical work required of them, are kept tolerably busy all the time. Apparently, however, the actual work of studying

and assessing values is largely crowded into the three months from May 15th to August 15th. This is a mistake. So far as possible they should be relieved of purely clerical work, and should spend their time continuously, throughout the entire year, in the real work of assessment. They should observe and carefully follow all changes of value, and steadily, month by month, add to their knowledge and experience. All records should be kept up to date, and to do this, as well as to relieve the assessors of the ordinary clerical work of transcribing and copying records, etc., each assessor should be assisted by a clerk appointed after competitive examination. This arrangement of duties would leave the assessors free to attend to the more important function of determining and revising property values. In all probability more equitable assessments would result because assessors would have the opportunity for doing their work more deliberately, carefully, and constantly.

33. Assuming it to be legal, what may be said as to the advisability of hiring assessors outside the city to make our assessments?

The intelligent assessment of real estate for purposes of taxation presupposes, on the part of the assessor, a thorough knowledge of local conditions. If such conditions are ignored and an attempt is made to build up from a few more or less accurately determined valuations, by means of hard-and-fast mathematical rules, the values of all other real estate in the community, the result may be a "scientific" assessment, but it will be satisfactory to no one save those who make it. When a city calls in outside assessors, it ceases, in assessment matters, to build up, year by year, information absolutely its own and always at its disposal; it no longer trains and educates to increased efficiency its own employees; on the contrary, it pays for the education, in local conditions, of non-residents, suffers from "scientific" but inequitable assessments during the process, and every year becomes more dependent upon non-resident help. No city should be absolutely dependent upon outside help for performing its own functions.

ASSESSMENTS BY DISTRICTS

- 34. What would be the advantage to the Board of Revision of requiring the recording of assessment lists by districts rather than by wards, as is done at present?**

The law requires that assessments shall be made by wards, but actually the assessments are originally made by districts and then laboriously transferred into ward books in order to conform to the law. This process involves considerable time, labor, and materials. It would seem clearly advisable, therefore, from the standpoint of the assessing body, to amend the law so that assessment lists might be compiled by districts rather than by wards. There is a question, of course, as to whether the resultant advantage to the assessors and the Board of Revision would be more than counterbalanced by the possible confusion and inconvenience caused by such a change to real-estate men, title insurance companies, and to owners and prospective purchasers of real estate.

VIII. TOOLS AND METHODS OF THE DEPARTMENT

BLOCK AND LOT MAPS

- 35. What tools should be placed in the hands of assessors to aid them in their work under the proposed system?**

The most useful aids are block and lot maps, land value maps, and factors of value used in determining the construction cost of buildings. In Philadelphia at the present time the assessors do their work without any of these aids.

- 36. Where are block and lot maps used in making assessments?**

In New York, Chicago, Cleveland, Newark, and many other cities in the United States and Canada.

- 37. What is a block and lot map?**

In preparing block and lot maps, the city is first divided into blocks, which are parcels of land surrounded by streets, or streets and water-front, and may contain one or more city squares, but generally the word block, as used in this connection, refers to an area not exceeding 240,000 square feet, which is equivalent to a rectangular plot of ground 600 by 400 feet in area. The exact boundaries of every separately assessed parcel of real estate in the city are

shown on these maps. Blocks are numbered consecutively from one upward. The separate lots or parcels of land within each block are also numbered consecutively from one up for as many lots as are comprised within each block. The city is then divided into sections, each section containing not more than three or four square miles in area. The sections are likewise numbered consecutively from one up.

For the convenience of the assessors the maps are bound in volumes of suitable size, with a key map in front. In the territory where the street system has not become sufficiently permanent to establish unchangeable block lines, the maps are temporary and are called tentative maps. So far as practicable, however, the same system applies in the territory only tentatively mapped. Every lot is numbered, and its position is designated by a number on the map.

The length of all boundary lines is shown on the maps in feet and inches, and on valuable lots of irregular shape the area is shown in square feet; on larger parcels the area is shown in acres.

(See portion of a block and lot map on page 36.)

38. What results have been obtained from the use of block and lot maps?

Accurate maps are the foundation of a good system of assessing real estate. The method of describing real estate by block and lot numbers saves much labor and secures greater accuracy. On the assessment rolls the blocks appear consecutively, and within each block the lots are placed in accordance with their location on the streets, commencing at one corner and proceeding continuously along each side of the squares which constitute the block. Any lot may be located rapidly and certainly either on the assessment roll or on the map. It will readily be seen that such maps facilitate the orderly geographic listing of real estate for purposes of taxation, and also simplify the description of real estate in tax matters for purposes of identification. In Philadelphia we already list our real estate for taxation purposes geographically, rather than alphabetically, under the names of the respective owners,

so that the introduction of block and lot maps is perhaps less important here than it would be in many other cities. Even so, it would be of distinct advantage. These maps are used by the assessors in computing the value of lots on the basis of the unit values as shown by the land value maps.

LAND VALUE MAPS

39. Where are land value maps used in making assessments?

In New York, Cleveland, Trenton, Newark, and various other cities.

40. How do land value maps differ in purpose from block and lot maps?

Land value maps are entirely different from block and lot maps. They are prepared to facilitate comparison of land values and thus to assist in standardizing and equalizing the assessments of land for purposes of taxation. They are generally regarded as the most useful aid toward equalization of assessment which can by any possibility be placed in the hands of an assessor.

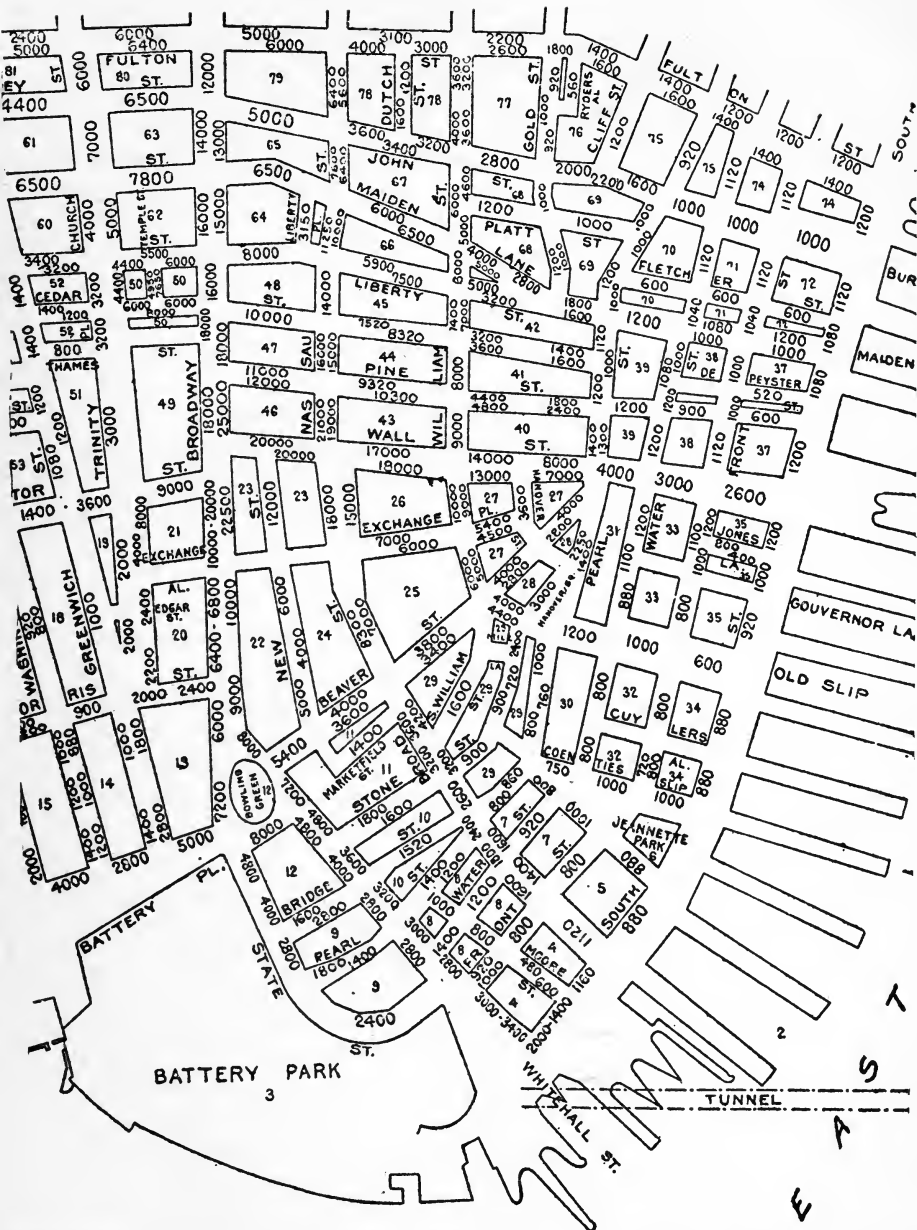
41. On what general principle is the utility of land value maps based?

The utility of land value maps is based on the general principle that a more or less definite relationship tends to exist between the land values of lots of the same general character situated in the same immediate locality or in other localities subject to similar conditions.

42. What is a "land value map"?

A land value map is a map which shows for the area which it covers, first, all streets and water front (the section, block and lot lines used in block and lot maps not being indicated), and second, by figures written opposite each of the four sides of every square, the value per front foot of an average inside lot, usually situated about half-way between the two corners, fronting on the street along which the figures are written, running straight back from the street, being neither above nor below the grade of the street and having a depth previously ascertained to be the usual depth of lots in the city which the map in part represents.

Where the same value per front foot of an average inside



A PORTION OF ONE OF THE LAND VALUE MAPS USED IN NEW YORK CITY, SHOWING UNIT VALUES AND BLOCK NUMBERS.

lot, situated about half-way between the two corners and of normal grade with respect to the street, applies equally to the land on opposite sides of the street, the figures representing such value are generally shown in the center of the street and but once; where the value per front foot of such an average inside lot is not the same for the land on opposite sides of the street, a double set of figures is used to record the difference in value; and where the value per front foot of such an average inside lot varies considerably within the same square on the same side of the street, separate figures are used to record the difference.

In cases where the land is not divided into squares by city streets the value per acre is shown at appropriate points. The unit values indicated on land value maps refer to the value of the land alone as apart from that of the buildings or improvements thereon.

43. What is meant by an "inside lot"?

By an inside lot is meant any lot other than a corner lot.

44. What is the unit of area popularly used at present in comparing the land values of lots differing in size?

There is none. One man says the value of his land is so much per acre; another quotes his at so much per square foot; another says his is worth so much per front foot without indicating whether the figure he names applies to a lot fifty feet, one hundred feet, or two hundred feet in depth. It is obvious that there is no proper basis for comparison between these different statements.

45. What unit of area has been adopted as the standard for use in comparing land values on land value maps?

A lot having a frontage of one foot and a depth ascertained to be that of the average city lot in the community which the map represents. In New York city, for example, this depth is one hundred feet.

46. Why has this particular unit been selected?

First: The relatively small size of the average city lot is sufficient reason for not selecting an acre as the unit of quantity by which to compare land values in cities.

Second: In any given lot the respective square feet usually differ in value; for example, those square feet

fronting on the street are worth more than those in the rear. Hence to compare the land value of lots of different size by means of their value per square foot would be misleading.

Third: As has already been indicated, to compare the land value of lots of different size by their respective value per front foot is equally misleading unless their respective depths are the same.

Fourth: By combining, however, the familiar idea of a front foot, with a depth equal to that of the average lot in the city (say 100 or 150 feet), a unit is reached, easily comprehensible, of convenient size and shape for use in estimating values, and at the same time taking into account the varying values of the different parts of a piece of land as affected by their respective nearness or remoteness to the street on which it fronts.

47. What is the meaning of the term "unit value" as applied to land value maps?

Lots having a street frontage of one foot, extending back a distance equal to that of the average lot in the city (say 100 or 150 feet), usually situated about half-way between the two corners, being at right angles to the street, and being of normal grade, are the standard units of area used by assessors in working out land values for purposes of comparison, etc., by means of land value maps; and the value of such a lot is termed the unit value of the (linear) square on which it fronts.

48. How are such "unit values" determined?

The unit value, or values, for any given (linear) square are determined as follows:

- a. Select an inside lot near the center of the square.
- b. Ascertain the value of the land contained therein as apart from that of the buildings or improvements.
- c. If it is off-grade, allow for that fact.
- d. If it is of more or less than average depth, calculate its value if of normal depth (for example, 100 or 150 feet).
- e. If it is of irregular shape, add from adjoining property or subtract from the lot itself to make it a square or rectangular lot at right angles to the street and allow for such addition or subtraction in determining values.

- f. If it has any other peculiarities differentiating it from the other inside lots fronting on the same square, allow for all such peculiarities.
- g. Having done all this, divide the value arrived at by the number of feet frontage and the quotient will be a tentative figure, for the unit value.
- h. This should be checked up by treating similarly various other inside lots on the same square, and by obtaining, through proper publicity, all possible criticism and suggestion.
- i. If it is found that there is a marked difference in the land values of different inside lots in the same square and on the same side of the street, more than one unit value should be set down at appropriate points on the map for such a square.

49. What relation has the land value of any particular lot to the unit value set down on the land value map for the (linear) square on which it fronts?

The relation which the land value of any particular lot bears to the unit value set down on the land value map for the (linear) square on which it fronts, depends on the character of the lot in question. If it is an average inside lot with no peculiarities differentiating it from the other inside lots fronting on the same side of the same square, the relation is largely one of arithmetic. If, on the other hand, it is a corner lot, or an inside lot off grade, or of irregular shape, or unusual in depth, or in any other respects peculiar, this arithmetical relationship comes into play only after careful allowance has been made for all such peculiarities.

Given, however, (1) the land value of any particular lot, (2) its exact dimensions in feet, (3) the unit value for the square on which it fronts, (4) accurate information as to any facts differentiating it from the average inside lot fronting on the same (linear) square, and (5) a percentage table to be used in determining the values of lots of varying depths and irregular areas—there should then be little difficulty in checking up the assessed value of the land as apart from that of the buildings or improvements thereon.

50. What are some of the benefits to be derived from the use of land value maps?

The outstanding benefit to be derived from the use of land value maps is the resulting possibility of intelligent comparison of real estate assessments. Land is the only thing which all parcels of real estate in the city have in common. Some parcels are built upon, some are not. Of those improved, some have brick buildings, some stone, some wood. Moreover, buildings differ in character, in purpose, in age and in countless other respects. So that even if all assessments as made in Philadelphia to-day were published, that of itself would not make intelligent comparison of assessments possible for the average man, save, perhaps, in the case of unimproved properties; but where land value maps are used, any one with ordinary intelligence can pass upon the fairness with which the assessor has done his work so far as land apart from buildings is concerned. Note, however, that such maps are practically valueless without the separate assessment of land and of the buildings and improvements thereon.

The intelligent comparison of assessments, made possible by land value maps, inevitably results in greater uniformity and equalization of assessments. They aid the assessing authorities in considering claims for reduction and in satisfying complainants as to unfair assessments; they have a marked effect in placing a check on favoritism if an assessor is disposed to favor any particular taxpayer or taxpayers.

They are an invaluable check on the work of the individual assessor. When all the unit values determined by an assessor are spread out on a map, it is for the first time possible for him to study intelligently and comprehensively the relation of the various assessments made by him, the one to the other. He is afforded a bird's eye view of his whole assessment district. If some particular assessment is too high and some other too low, such facts become immediately apparent.

Of course, unit values may change from year to year and must be constantly revised as circumstances warrant. Therefore, land value maps should be published annually.

51. What is meant by corner influence?

By corner influence is meant the enhanced value a parcel of land carries by reason of its proximity to or location on the corner of two intersecting streets. The relative value of a corner lot as compared with that of an interior lot depends upon the importance of the two streets on which the corner lot fronts and the location in the city. The greatest increase in value for a corner lot is at the intersection of two streets of equal importance in the best location, and this increase diminishes as the difference between the streets increases, until one of the intersecting streets may be regarded as adding nothing to the property in excess of the value of an easement of light and air. Generally it will be found that the increment due to a corner position extends 100 feet in each direction from the corner.

52. How may the extent of corner influence be determined?

The extent of the corner influence and the consequent ratio of increase in value are sometimes determined in accordance with an appropriate basic scale of percentage values which scale is decided upon in advance of assessment and is based upon the best evidence obtainable.

In Cleveland and other cities that have adopted the Somers system, an imaginary corner lot of 100 feet square is divided into 100 squares, each 10 feet on a side. Percentage values are then worked out by a method of computation in accordance with secret formulæ owned by the Somers system. This appears to be the only mathematical rule used in determining corner influence. In Newark, corner lots in the business section are assessed 50 per cent. higher than other lots, and 25 per cent. higher in the residential section. In New York, corner lots are also assessed higher than other lots in accordance with a fixed percentage. These scales vary but slightly in different cities, probably no more than in different parts of the same city.

53. How may the values of irregular shaped lots be accurately determined?

In order to compute accurately the value of long or short lots and of irregular lots, it is necessary to fix values for various depths from the street front. As the result of experience, several tables have been worked out in various

cities showing the values (in terms of percentage of the entire value) of each foot in depth back to 200 feet or more from the street. By applying such percentage values, the value of a lot of any depth or with irregular sides is easily obtained. These tables, while slightly differing in various cities, are in substantial accord, and are used by assessors to the great saving of their time and also to aid uniformity of assessment of the land.

54. What is meant by the Hoffman-Neill rule of varying depth and state where and how it is used?

The Hoffman-Neill rule for determining the value of varying depths of lots is used in New York city. It was first promulgated by Judge Murray Hoffman of New York, and later elaborated by Henry Harmon Neill. Taking 100 feet as the unit depth, the value of the first 50 feet of this depth is considered as two-thirds of the value of the whole. From this as a starting point calculations are made to show the proportion of the value of each foot in depth to the value of the whole as follows:

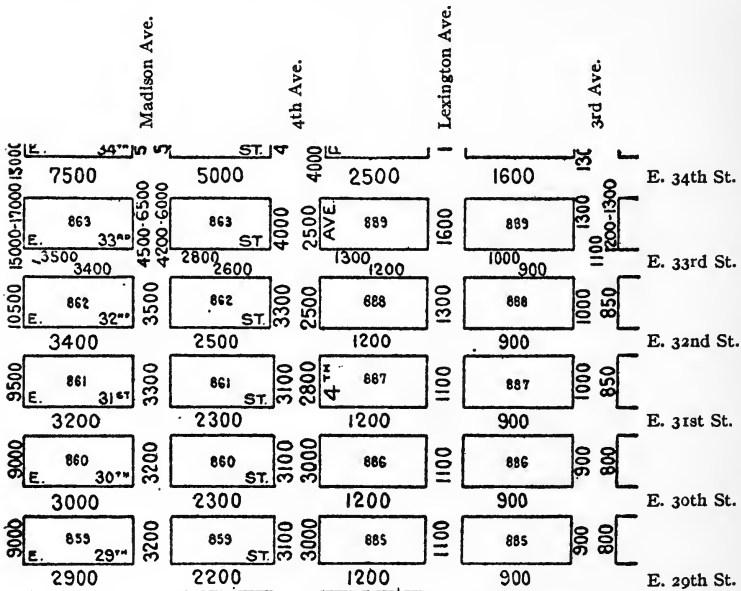
HOFFMAN-NEILL RULE

FEET	PER CENT.	FEET	PER CENT.	FEET	PER CENT.	FEET	PER CENT.
1	6.76	26	45.48	51	67.45	76	85.14
2	10.14	27	46.50	52	68.22	77	85.79
3	12.86	28	47.51	53	68.99	78	86.44
4	15.20	29	48.50	54	69.75	79	87.09
5	17.32	30	49.47	55	70.51	80	87.73
6	19.29	31	50.42	56	71.26	81	88.37
7	21.12	32	51.36	57	72.01	82	89.01
8	22.82	33	52.29	58	72.75	83	89.64
9	24.43	34	53.21	59	73.48	84	90.27
10	25.98	35	54.12	60	74.20	85	90.90
11	27.48	36	55.01	61	74.92	86	91.53
12	28.93	37	55.89	62	75.63	87	92.16
13	30.33	38	56.76	63	76.34	88	92.78
14	31.68	39	57.63	64	77.04	89	93.40
15	32.98	40	58.49	65	77.74	90	94.01
16	34.24	41	59.34	66	78.34	91	94.62
17	35.47	42	60.18	67	79.12	92	95.23
18	36.67	43	61.02	68	79.81	93	95.83
19	37.84	44	61.85	69	80.49	94	96.43
20	38.99	45	62.67	70	81.17	95	97.03
21	40.12	46	63.48	71	81.85	96	97.63
22	41.23	47	64.29	72	82.51	97	98.23
23	42.32	48	65.09	73	83.17	98	98.82
24	43.39	49	65.88	74	83.83	99	99.41
25	44.44	50	66.67	75	84.49	100	100.00

A convenient rule, in common use in New York city, for the determination of the value of lots of greater depth than 100 feet, is as follows:

For the first 25 feet beyond 100 feet add 9 per cent.
 " " second 25 " " 100 " " 8 " "
 " " third 25 " " 100 " " 7 " "
 " " fourth 25 " " 100 " " 6 " "

The following examples will illustrate the method of computing the value of each of three lots from the unit value as shown on a land value map:



SMALL SECTION OF LAND VALUE MAP

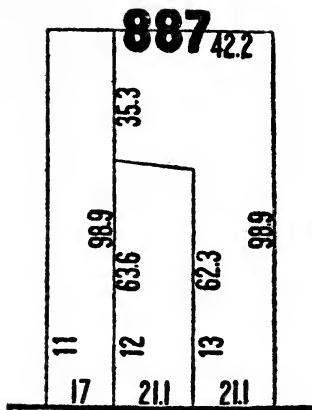
CALCULATION OF LAND VALUE

For Lot II.

17 x \$1,200 equals \$20,400.

This lot is 17 feet wide by 98.9 deep (so nearly 100 feet that it has been treated as a full lot).

Hence the assessed land value of \$20,400.



E. 31ST ST.

SMALL SECTION OF BLOCK AND LOT MAP SHOWING THREE LOTS IN BLOCK NUMBER 887, SHOWN IN PRECEDING LAND VALUE MAP. NOTICE LOT NUMBERS AND EXACT DIMENSIONS OF LOTS.

For Lot 12.

$21.1 \times \$1,200$ equals \$25,300.

But the lot is only 63 feet deep; applying the Hoffman-Neill Rule, we multiply \$25,300 by 76 per cent., which equals \$19,418.

Hence assessed value (in round figures),
\$19,400.

For Lot 13.

21.1×98.9 , irregular.

$21.1 \times \$1,200$ equals \$25,300.

But this lot includes what would be the rear of Lot 12, if that lot were a full lot.

This rear portion is worth the difference

between the value of a full lot,
which is \$25,300

and the value of that portion of a
full lot which is included in Lot 12,

namely, 76 per cent. of the full lot . . . 19,400

Hence the value of the rear portion is . . . 5,900

Add 25,300

\$31,200

Assessed value of Lot 13 is \$31,000, because an allowance of \$200 has been made on the rear portion in recognition of the difficulty of using or selling it.

55. What is meant by the Newark rule?

In Newark the rule used for determining the values of varying depths differs a little from the New York rule in the importance given to various parts of a depth of 100 feet. The following table shows the percentages of values up to 200 feet:

BUSINESS SECTION		RESIDENTIAL SECTION	
Feet Deep	Per Cent. of Unit	Feet Deep	Per Cent. of Unit
10	25	10	16
20	41	20	30
30	54	30	44
40	64	40	55
50	72	50	65
60	80	60	74
70	86	70	83
80	91	80	91
90	96	90	96
100	100	100	100
110	104	110	104
120	108	120	108
130	112	130	112
140	116	140	116
150	121	150	120
160	124	160	124
170	127	170	127
180	129	180	129
190	131	190	131
200	133	200	133

Plus 16 per cent. for each additional hundred feet, provided the conditions do not warrant it being assessed from another street.

56. What is the Cleveland rule and where is it in operation?

The standard rule used in Cleveland gives a slightly greater value for the first 50 feet than does the Hoffman-Neill rule. Tables have been computed showing foot values to 700 feet, as follows:

PERCENTAGE OF UNIT VALUE FOR LOTS FROM 1 TO
700 FEET DEEP

DEPTH FEET	PER CENT.	DEPTH FEET	PER CENT.	DEPTH FEET	PER CENT.	DEPTH FEET	PER CENT.	DEPTH FEET	PER CENT.
		50	72.50	100	100.00	150	115.00	200	122.00
1	3.10	1	72.25	1	100.41	1	115.19	1	122.00
2	6.10	2	74.00	2	100.85	2	115.38	2	122.20
3	9.00	3	74.75	3	101.27	3	115.57	3	122.30
4	11.75	4	75.50	4	101.70	4	115.76	4	122.40
5	14.35	5	76.20	5	102.08	5	115.95	5	122.50
6	16.75	6	76.90	6	102.48	6	116.12	210	122.95
7	19.05	7	77.55	7	102.88	7	116.29	15	123.38
8	21.20	8	78.20	8	103.25	8	116.46	20	123.80
9	23.20	9	78.85	9	103.62	9	116.62	30	124.60
10	25.00	60	79.50	110	104.00	160	116.80	240	125.35
1	26.70	1	80.11	1	104.36	1	116.96	50	126.05
2	28.36	2	80.77	2	104.72	2	117.13	60	126.75
3	29.99	3	81.38	3	105.08	3	117.30	70	127.40
4	31.61	4	82.00	4	105.43	4	117.47	80	128.05
5	33.22	5	82.61	5	105.78	5	117.64	90	128.65
6	34.92	6	83.21	6	106.13	6	117.79	300	129.25
7	36.41	7	83.82	7	106.47	7	117.94	10	129.80
8	37.97	8	84.42	8	106.81	8	118.09	20	130.35
9	39.50	9	85.01	9	107.15	9	118.24	30	130.90
20	41.00	70	85.60	120	107.50	170	118.40	340	131.40
1	42.50	1	86.15	1	107.80	1	118.54	50	131.90
2	43.96	2	86.70	2	108.11	2	118.70	60	132.40
3	45.30	3	87.24	3	108.43	3	118.85	70	132.85
4	46.61	4	87.78	4	108.75	4	119.00	80	133.30
5	47.90	5	88.30	5	109.05	5	119.14	90	133.75
6	49.17	6	88.82	6	109.35	6	119.28	400	134.20
7	50.40	7	89.35	7	109.65	7	119.41	10	134.60
8	51.61	8	89.87	8	109.93	8	119.54	20	135.00
9	52.81	9	90.39	9	110.21	9	119.67	30	135.40
30	54.00	80	90.90	130	110.50	180	119.80	440	135.80
1	55.05	1	91.39	1	110.76	1	119.92	50	136.15
2	56.10	2	91.89	2	111.02	2	120.05	60	136.50
3	57.15	3	92.38	3	111.28	3	120.18	70	136.85
4	58.20	4	92.86	4	111.55	4	120.31	80	137.20
5	59.20	5	93.33	5	111.80	5	120.43	90	137.55
6	60.30	6	93.80	6	112.05	6	120.55	500	137.85
7	61.25	7	94.27	7	112.28	7	120.66	10	138.15
8	62.20	8	94.73	8	112.52	8	120.77	20	138.45
9	63.10	9	95.17	9	112.76	9	120.88	30	138.75
40	64.00	90	95.60	140	113.00	190	121.00	540	139.05
1	64.95	1	96.04	1	113.20	1	121.10	50	139.30
2	65.90	2	96.50	2	113.43	2	121.21	60	139.55
3	66.75	3	96.95	3	113.64	3	121.32	70	139.80
4	67.60	4	97.40	4	113.85	4	121.43	80	140.05
5	68.45	5	97.85	5	114.05	5	121.53	600	140.55
6	69.30	6	98.30	6	114.25	6	121.62	20	140.95
7	70.10	7	98.74	7	114.45	7	121.71	40	141.35
8	70.90	8	99.17	8	114.64	8	121.80	60	141.75
9	71.70	9	99.58	9	114.82	9	121.90	80	142.05
50	72.50	100	100.00	150	115.00	200	122.00	700	142.35

The Cleveland rule is also used in Springfield, East St. Louis, St. Louis, and Joliet, Ill.; Houston and Beaumont, Texas; and five or six other cities of lesser importance.

57. What other rule has been devised to determine land values of varying depths?

Tables used in Baltimore, where the normal lot depth is 150 feet, show the percentage which a lot shorter than 150 feet bears to the standard size and the additional value of a deeper lot up to 200 feet. The value of the last 100 feet in a lot 200 feet in depth is made practically 20 per cent. of that of the first 100 feet. As to the front 50 feet there is little deviation from the Hoffman-Neill rule.

58. If one of the above rules were incorporated as a part of the new system suggested for Philadelphia, would there still be room for the exercise of judgment on the part of the individual assessor?

Yes. The assessor would still have to use his own judgment to a certain extent, backed by all available information, in fixing unit values, in making allowances for peculiar shapes of lots that might affect their desirability for a buyer, in making allowances for lots off grade, in determining depreciation or appreciation, etc.

59. If the judgment of the individual assessor plays such an essential part in the assessment of real estate, why then are block and lot maps, land value maps, etc., of so much importance?

Because even though a strictly "scientific" method of assessment, eliminating entirely the judgment of the individual assessor, is an impossibility, nevertheless, everything which tends toward uniformity and accuracy of method in assessing real estate, makes more probable equalization of assessment as between the various properties assessed, and is to that extent desirable. The use of block and lot maps and land value maps, as well as of "factors of value of new buildings" hereinafter described, has a marked influence toward standardizing the work of the different assessors. Their usefulness, therefore, cannot be questioned.

60. Should unimproved land in an improved section of the city be assessed at the same value as adjoining improved land, less, of course, the value of the improvements?

Yes. The law provides that all real estate be assessed at its full value, not upon the basis of what its owner may see fit to cause it to earn. Moreover, the value of unimproved land in an improved section is largely created by the improvements in the section in which it lies. It is, therefore, only just that such land should be assessed at the same rate as that which applies to the surrounding land.

61. Where has this practice been followed and with what results?

Such a plan has been in effect for many years in New York City and many other cities where land is separately assessed. As a result of its application, assessments have become more equitable and vacant lots in business centers and other districts highly improved have almost entirely disappeared, for it is no longer profitable to buy realty with no intention of improving it but merely to hold for increased values.

62. When it is necessary for the city to acquire certain land for public use and when such public use will enhance the value of the surrounding land, is it proper to assess such land to be taken at the enhanced value of the surrounding land?

No. The value of the land to be acquired by the city is not increased and the assessed value should not be advanced. The surrounding land, however, should be assessed at its full value as enhanced by the prospective public use.

FACTORS OF VALUE OF BUILDINGS

63. What tools in the nature of standards of value can be furnished assessors for use in assessing buildings and improvements as distinct from land itself?

The most important aids of this character are the so-called "factors of value of new buildings."

64. What are factors of value of new buildings, how are they determined, and how are they used in estimating the value of a particular building for purposes of assessment?

Architects and builders have ascertained that in many instances there is a more or less definite relationship between

the construction cost of a building and the number of square feet of floor space (disregarding air shafts and irregularities) in the building. Therefore, if the construction cost of a particular building per square foot of floor space has been determined, by dividing the total construction cost of the building by the number of square feet of floor space therein, then the construction cost of any other building of the same general character, *i. e.*, differing fundamentally only in the matter of size, may be more or less accurately determined by multiplying the number of square feet of floor space therein by the construction cost per square foot of floor space of the first mentioned building. Architects and builders generally estimate the cost of a building by its cost per cubic foot of contents, counting from the bottom of the excavation to the top of the building. This system is hardly practicable for assessors, who frequently find it difficult to obtain the required information as to the height of buildings or their depth below the level of the street. It is practicable, however, for assessors to determine with substantial accuracy the number of square feet of floor surface on each floor and the number of floors. For present purposes, therefore, factors of value may be defined as the construction cost of a building per square foot of floor space.

Where such factors of value are in use, buildings are classified, so far as seems practicable, into various groups or classes, as for example:

Dwellings:

- 2 to 2½ story frame houses without improvements
- 2 to 2½ story frame houses with improvements
- 3 to 4 story brick houses without improvements
- 3 to 4 story brick houses with improvements

Very costly dwellings,
 Modern hotels,
 Warehouses,
 Office-buildings,
 Department stores,
 Factories,
 Stables,
 Garages,

} Each with various subclassifications, as partially illustrated above in the case of dwellings.

Then by careful investigation the factor of value for each particular class is determined, and a general table setting

forth the factors of value for all the various classes is prepared for the use of assessors.

Of course, all such factors must be constantly subject to examination and modification to meet changes in conditions. They are intended not to control but merely to assist the judgment of an assessor in reaching well-informed conclusions. Moreover, these factors of value are merely of assistance in arriving at the construction cost of a building, and, therefore, after this construction cost has been ascertained, the judgment of the individual assessor still has to be called into play in considering the effect of age, changes in the character of the neighborhood, rental value, etc. Without consideration of these elements the value of a building at any particular time cannot be fairly determined. The fact remains that a method which enables assessors throughout the city to ascertain with a fair degree of accuracy, before their individual judgment comes into play to any great extent, the construction cost of a building, greatly reduces the probability of unequalized assessments.

65. In arriving at assessment values, to what extent should earning capacity be given consideration?

If improved property cannot be rented, it indicates that the building is unsuitable and has substantially no value, or it indicates a very serious decline in land value. The important question is whether the building is thoroughly suitable. For example, a case could be shown of a building that remained untenanted in spite of great effort to rent it until another man bought the property, made slight changes at small expense, and filled his building with tenants.

In estimating the value of a property long improved where deterioration and obsolescence are difficult to determine, the earning capacity should always be considered. The New York city rule is: That a plot of land and the building on it that is used as a revenue-producing property is worth at least the net rental capitalized at a suitable rate per cent.; and that this is the best test of the value of the whole, unless the land alone is worth more than this amount; and that the whole is never worth more than the net rental capitalized at a suitable rate per cent. until the land alone exceeds in value this capitalized sum.

For example, many a case could be shown of a building, when first erected twenty-five years ago, that returned to the owners a gross rent of \$20,000. The property as a whole was worth \$200,000. Today, the gross rent is about \$19,000. The owners have managed with a great deal of effort and care to keep their rent roll at almost the same figure, although the neighborhood has been changing, and better business houses have been constructed all around. The land is now worth about \$160,000, as against perhaps \$75,000 twenty-five years ago. The total value has remained the same, and the land has been going up, up, up, and it may be in a few years that the land will come to be level in value to the original value of the whole property, and then the old building ought to come down. To-day the building is worth something, perhaps \$40,000, or the total value is the capitalized rent to-day, just as it was twenty-five years ago. This illustrates how the land creeps up on the building as the building becomes valueless.

66. In the case of a building which through depreciation becomes obsolescent, how can the assessor determine how much shall be cut down from the cost of reproduction of the building in order to give a fair valuation of the property?

Every building depreciates year by year until it loses all value, and the assessor must take account of this fact. After it has become obsolete it may stand for a hundred years or more, but nobody would pay anything more for the land because of the building. The improved methods of building are such that an appropriate structure may now often be erected on modern plans for much less than it formerly cost for a building to serve the same purpose less efficiently. Under these circumstances an old-style building in good repair can be worth no more than a modern building costing much less which serves the same purpose equally well. So it requires a large degree of judgment to determine how much shall be cut down from the cost of reproduction in order to give a fair valuation for the property. It should be borne in mind that this very reduction in cost of construction often tends strongly to enhance the value of land.

Sometimes even a new building will be built in such a foolish way that it is worth less than its actual cost. For example, an apartment house, where the rooms are so small and the halls so narrow that they cannot be rented profitably, is actually worth less than the cost of a proper kind of new building would be.

In Philadelphia there are many buildings which although rented and occupied add nothing to the value of the ground on which they stand. In New York, such buildings have levied on them an assessment equal to about one year's rental, on the theory that when the parcel is bought for improvement it takes some months to prepare plans to get ready for the erection of a new and suitable building, and during that time the old building is a revenue producer. The cost of reproduction of such a building is not taken into account at all.

67. How should buildings in the course of construction be assessed?

In New York city the old rule for assessing buildings in course of construction was the same as the present practice in Philadelphia, whereby the assessor attempts to compute the sum expended in construction on the unfinished buildings up to the date when the assessment rolls are completed, this amount being thereupon reported as the assessment on the buildings in question.

The new rule, just adopted in New York, is that, "A building in course of construction, commenced since the preceding first day of October and not ready for occupancy, shall not be assessed." Since the annual record of the assessed valuation of real estate is opened for public inspection on October 1st, this rule virtually allows a maximum limit of one year for the construction of a building, and if the building is not ready for occupancy within that period, it is not assessed.

TRUE CONSIDERATION TO BE STATED IN DEEDS

68. If it is true that assessors form their judgments as to values to a large extent by a consideration of sales, how then are they to learn of the terms of sales?

The law requires assessments to be made at the true

market value or the sum for which the property would sell under ordinary circumstances. The assessor must not guess at values, he must not put down what he thinks they may be or ought to be, but what they are. The value of real estate is what the community thinks it is worth, as evidenced by what men buy and sell it for. Selling prices, however, cannot always be relied upon by an assessor as a just figure at which to assess a particular property, because a sale may only represent the opinion of the buyer and the seller as to the value of the property. For example, necessity may compel the sale of a property for much less than it would ordinarily bring, so selling prices can only be counted upon as one of the many indications of value which should be considered in arriving at assessments.

In nearly all deeds, however, the true value given for property is concealed by stating the consideration to be "nominal" or "one dollar and other good and valuable consideration," or by some other subterfuge, such as stating a small sum which is known to be nowhere near what the property is worth. An assessor depending upon such meagre and untruthful information is handicapped in his endeavor to make fair and equal assessments, and it is therefore greatly to be desired that a law be passed, requiring the true consideration to be recorded in all deeds transferring real estate.

When the true consideration in all deeds is known to an assessor, it will be easy to make fair and full assessments and hard to make them otherwise.

ASSESSORS' FIELD BOOKS

69. What further tools should be placed at the disposal of assessors?

The most approved and convenient form of assessor's "Field Book."

70. What is an assessor's "Field Book"; and what sort of information should be provided for in such a book?

The assessor's field book is a book to be used by an assessor for the purpose of recording and classifying all information and evidence of value possible for him to ob-

tain that would help to determine assessments. Such a book should provide suitable columns or space for the following entries:

- a. Name of owner or occupant
- b. Size of lot
- c. Number of houses on lot
- d. Size of each house
- e. Number of stories high
- f. The street number
- g. The section, block and lot numbers
- h. The value of the real estate unimproved for two consecutive years
- i. The final assessed value for six consecutive years
- j. Conveyances, with the consideration if known
- k. Mortgages, with the names of the institutions lending the money, if the institution is one limited by law to loans not in excess of a certain percentage of the market value
- l. Recorded leases with the period and rental
- m. Remarks and any other data, or confidential information, which may be indicative of value

In addition to the field book, a card system may be employed to supplement the information recorded in the field book, and ordinary scrap books are frequently found to be useful tools for preserving newspaper clippings, etc. Field books should be bound in permanent form and preserved a reasonable length of time.

71. Should assessors' field books be open to public inspection?

So far as practicable, but not necessarily as a matter of right.

72. When changes are made in assessments, should the reasons therefor be preserved in permanent form?

An assessor's reasons for changing assessed values should be shown by the memoranda in the field books. If applications are made for the reduction of an assessment, the application should be preserved together with the report of the assessor.

73. Should such reasons be open to public inspection?

So far as practicable, but not necessarily as a matter of right.

74. Should the records of all available sales, transfers, mortgages, leases, etc., be preserved in permanent form?

Yes.

75. Should such records be open to public inspection?

So far as practicable, but not necessarily as a matter of right.

COMMUNICATION WITH PUBLIC

76. What information should assessment notices contain and how should they be issued?

After the annual assessments of all properties have been completed, assessment notices might be sent to each taxpayer, showing:

- a. The location of the property
- b. Assessment section number
- c. Block and lot number
- d. Amount of the assessment on land
- e. Amount of the assessment on improvements
- f. Amount of the total assessment on the property
- g. Date when hearings for reductions will be made

Theoretically, there can be no doubt as to the desirability of sending out such notices; practically, however, it is perhaps an open question whether to do so would entail too much labor and expense. It is not done in New York city

77. What other formal communications should be sent to taxpayers who appeal for reductions?

In addition to the assessment notices, taxpayers should be formally notified regarding the final action of the Board of Revision on claims for reductions.

SYSTEMATIC PUBLICITY

78. Supposing that all real estate is assessed at its full value; that the assessment system embraces the principles of separate assessments on land and improvements; that the members of the Board of Revision, the assessors, and the clerks, are men chosen for their fitness and are under the control of the taxpayers; that the department is equipped with the proper tools, such as block and lot maps, land value maps, and factors of value of new

buildings; what still remains necessary to make the system efficient?

Systematic publicity. It is important that every taxpayer be enabled to understand, not only the amount at which his property is assessed, but how this assessment is arrived at. Where the methods heretofore indicated are in use it has been found that if a taxpayer may have in his own possession a land value map covering the neighborhood in which his property is situated, and a printed list, geographically arranged, of the exact amounts at which all land and the buildings and improvements thereon in such neighborhood are assessed, it is a comparatively easy matter for any intelligent man to check up on the work of the assessors. This of itself prevents a vast number of appeals. It tends to give taxpayers confidence in the assessors. It awakens a realization that all property owners are being fairly and equally treated.

79. Should block and lot maps be published annually for general distribution?

No. This would be both unnecessary and expensive.

80. Should land value maps be published annually for general distribution?

Yes. The land value maps of each section of the city should be published in separate pamphlets and in sufficient numbers to meet a proper and reasonable demand. This can be done without excessive expense and is done to-day in a number of cities, including New York. Such maps should be published before assessments have been completed, so that the taxpayers may have the benefit of them before the assessors have reached their final conclusions. The time to equalize assessments is when the assessments are being made and not afterward.

81. Should a complete list of the assessed valuations of all real estate in the city be published annually?

Yes. Such a policy has met with success in New York and is an admirable method of publicity. The publication, however, should take the form of a series of pamphlets, each pamphlet containing a particular assessment district. This enables any one who is interested to secure the assessment roll of any particular section for purposes of

study. If the assessors are doing good work, the taxpayers will learn of it and this in turn makes the assessors' lives reasonably contented. If they are not doing good work, the criticism will be intelligent because it will be focused on particular items which can be corrected.

82. What information as to each property should be included in these pamphlets?

Such pamphlets should contain the following information:

- a. The name of the owner or occupant
- b. Size of lot
- c. Number of stories in the building
- d. Street number
- e. Section, block and lot numbers
- f. Value of real estate unimproved
- g. Value of real estate with improvement thereon

83. What other records connected with the assessment of real estate should be preserved, and to what extent should such additional records be open to public inspection?

All records of any sort whatsoever connected with the assessment of real estate should be preserved for a period of years in the offices of the department. This includes the assessors' field books, assessors' office records, block and lot maps, land value maps, assessment rolls, etc. These records last referred to, except perhaps the assessors' field books, should be open to public inspection at all reasonable hours.

84. What is the final element in systematic publicity relating to realty assessment?

The publication of an annual report of the department for general distribution, including the following subjects:

- a. The organization and personnel of the assessing body
- b. A detailed description of the method of assessment (this need only be published at intervals)
- c. A complete analysis of the various valuations by districts
- d. Separate statements in regard to the increase or decrease of land and improvement valuations, arranged by districts
- e. Aggregate assessments for past and current years in parallel columns

- f. Tax rate for past and current years in parallel columns
- g. A statement of all forms and amounts of taxable property and exemptions
- h. A statement as to the total number of assessments made and the cost of each assessment
- i. A brief and business-like balance sheet showing receipts and expenditures of the department, etc.
- j. A summary of any new tax legislation of interest to city taxpayers
- k. A summary of recent ordinances or resolutions of councils and of city solicitor's and city controller's opinions affecting the work of the assessing body
- l. Suggestions as to more efficient methods of carrying on the work of the department

IX. BENEFITS OF PROPOSED ASSESSMENT SYSTEM

85. Does the past experience of other cities justify the immediate introduction in Philadelphia of such a system?

The suggested improvements are not the whims or foibles of inexperienced students or theorists, but methods which have been tested and tried out in a large number of cities in this and other countries. Practically all of them are in use to-day in New York city. In view of the fact that there is no city in the United States or, for that matter, in the world, with the exception of London, where property is so valuable as in New York, nor any city where there are so many separate parcels of land to be assessed, the success in New York of the system suggested, since its introduction in 1906, and the local support given it by practically all the important real estate men in New York, is very significant. Fortunately, most of these improvements can be introduced in Philadelphia without any additional legislation other than the appropriation of the necessary money by councils.

86. Should the introduction of such an assessment system as the one proposed be a cause for alarm on the part of business interests?

No. Business interests have generally been found to welcome the replacement of an uncertain method of as-

assessment by a method that tends to insure accuracy and equalization. Extreme fluctuations in values largely disappear under such a method and the element of uncertainty is thus to a large extent removed.

- 87. Is there reason to believe that capital for investment in real estate would be attracted to Philadelphia from other money centers, provided a system of assessing realty should be introduced into this city such as would standardize land values and equalize assessments?**

Yes.

- 88. What would be the probable results of the introduction of such a system on the borrowing capacity and current revenues of the city?**

In those cities which have established systems of realty assessment embracing the main features enumerated above, experience has proved that prior to the introduction of such systems, there seemed to be a more or less universal tendency to the under-assessment of property. With the institution of this system, however, the result in each of these cities has been that the total assessment roll has been materially increased, thus adding both to the borrowing capacity and current revenue.

Should the suggested system be adopted in Philadelphia, there is reason to believe that there would be a similar experience here, resulting both in increased borrowing capacity and in increased current revenue.

- 89. Illustrate the use of such a system in meeting claims for reduction?**

A taxpayer comes before the Board of Revision and says: "Gentlemen, I have studied the land value map covering my section, have noted on the published assessment list the land values which you have placed on my property and the properties adjoining it, and I feel that you have valued my land too high. In the first place, the unit value for the square in which my lot is situated is too high." The Board thereupon gets out the land value map in question and the complainant points out to them another square in the same general neighborhood where he believes that the values should be just about the same as on the square in which he lives and shows the Board that

the unit value of this other square is one hundred dollars less than that of the square in which his lot is situated. Two questions are then definitely presented to the Board for explanation and answer: First, are these two squares made up of lots of about the same value? If so, which value is correct? These are practical, definite questions about which there can be intelligent discussion. When they have been disposed of, the complainant next says to the Board:

"Even assuming that your unit value for my square is right, the assessment on my particular land is too high. Look at the land value which you have placed on the lot next but one to mine. The area of the two lots is practically the same. The frontage is the same. Why have you assessed that land five hundred dollars less than mine?" To this the Board replies: "If you will notice the relation between the grade of the street on the square in which you live and the grade of the various properties, you will see that your property is on exactly the same grade or level as that of the street; on the other hand, the property two lots below you, to which you refer, is considerably below the level of the street and can never be improved advantageously without large expenditure for filling in, etc. Under these circumstances we think our assessment of these two properties is justified." This, too, raises a definite question about which there can be intelligent discussion.

The complainant, still dissatisfied, then says to the Board: "I do not think that the value which you have placed on my building is right. How did you work out this value?"

The Board replies: "Your building is so many feet long by so many feet deep; it is so many stories high; it has so many square feet of floor area; it plainly belongs to such a class of buildings for which the factor of value or, in other words, the construction cost when new is so much per square foot. The building is now some years old, so we have reduced the factor of value to such a figure per square foot to allow for depreciation. If that is wrong, where is it wrong?" The complainant replies: "Well, there are a lot of other buildings in the neighbor-

hood of about the same character which you have assessed fifty cents less per square foot of floor space. Here is a list of them." This, too, raises a fair subject for discussion as to the relative value of the complainant's building and the others mentioned by him.

Under such a system no time is wasted discussing whether a particular plot of land of such a shape and size with such a kind of building on it is worth more or less than any one of a half dozen others of totally different shape and size, made of totally different material and which cannot possibly be compared the one with the other. In other words, under the proposed system you have a given measure of value, or standard, to apply in your comparison and not one kind of value for one case and another in another case.

Appendix

RECOMMENDATION OF PROPOSED SYSTEM BY ADVISORY COMMITTEE ON MUNICIPAL FINANCE

On the fourth day of October, nineteen hundred and twelve, the Select and Common Councils of the city of Philadelphia, by joint resolution, appointed "An Advisory Committee on Municipal Finance," consisting of the following gentlemen:

JOHN P. CONELLY, <i>Chairman</i>	EFFINGHAM B. MORRIS
CHARLES SEGER	SAMUEL T. BODINE
HARRY J. TRAINER	C. S. W. PACKARD
ROBERT D. DRIPPS	EDWARD B. SMITH
CHARLES C. HARRISON	GEORGE W. NORRIS
MORRIS L. COOKE	

Mr. Morris was unable to serve, and EDWARD T. STOTESBURY and JOHN M. WALTON were later added to the committee.

The unanimous report prepared by this body for Councils reads in part as follows:

"As approximately one-half of the revenues of the city are derived from taxes on real estate, that source of revenue has had the chief share of our attention.

"Equality and fairness of assessment are essential in any system of taxation. If such equality does not exist a \$1 tax rate may mean a tax rate of \$1.10 or more to one owner, and a tax rate of 80 cents or less to another owner.

"We have been very favorably impressed by certain of the methods employed in the assessment of real estate in New York city, and believe that the Board of Revision of Taxes is ready to put the same into effect in Philadelphia, provided [Councils] will make the necessary appropriation. Lawson Purdy, president of the department of taxes and assessments of the city of New York, has very kindly consented to detail a competent member of his staff to acquaint the Board of Revision of Taxes with the methods followed by his department.

"We, therefore, submit for your consideration the following recommendations:

"That the Board of Revision of Taxes be respectfully requested to adopt the following features of the New York system of assessing realty:

"(a) The use of block and lot maps.

"(b) The separate assessment of land and improvements.

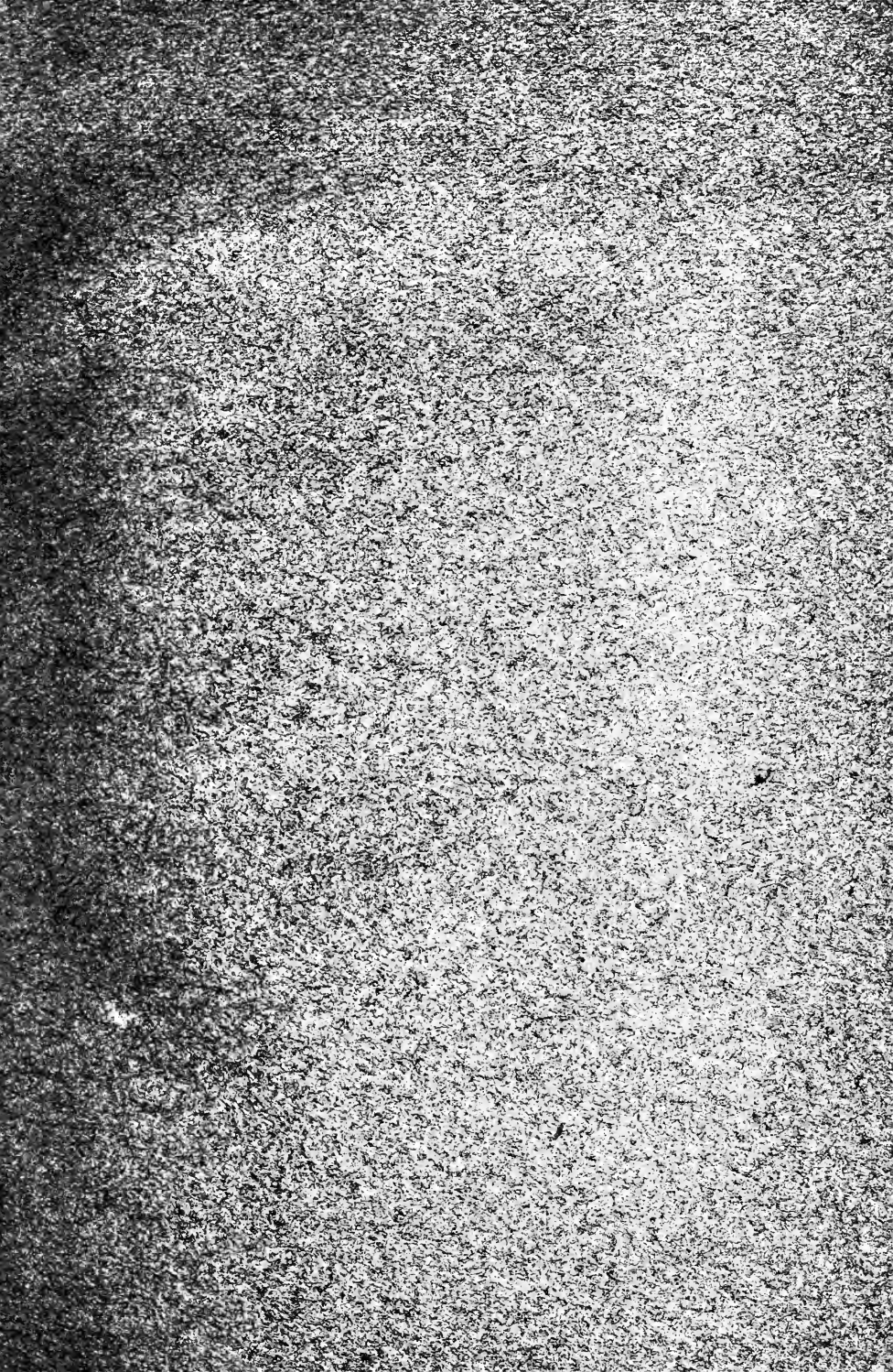
"(c) The use of land value maps.

"(d) The classification, so far as seems wise and practicable, of buildings into various types or classes, and the preparation of a 'factor of value' for each class, so that the construction cost of any building of a particular class can be readily ascertained by multiplying the proper factor by the total number of square feet of floor space, or by the total number of cubic feet of contents of the building.

"(e) Systematic publicity as to both methods and results of assessment of real estate, including the annual publication in reasonable quantities and convenient form of: First, land value maps. Second, a series of pamphlets which will include the entire assessment roll of the city. Third, an annual report of the same general character as that published in New York city.

"It is our thought that the Board of Revision of Taxes in carrying out these suggestions would do well to adopt the details of the system in use in New York city in so far as the same are included in the above recommendations.

"There is reason to hope that such a revision of the methods of assessment will add to both the revenue and the borrowing capacity of the city, as it has in other cities, but whether it does or does not, we believe these changes will tend to uniformity and fairness, and should therefore be adopted. We favor the passage of the bill now before the legislature requiring the true consideration to be stated in all deeds, and we also favor giving to the Board of Revision of Taxes the power to summon the owners of real estate to testify as to values under oath or affirmation."



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