

THESIS

The Industrial Bureau
A New Aid for Commercial Development

by

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TO THE FACULTY,
THROOP COLLEGE OF TECHNOLOGY,
GENTLEMEN:

This investigation is offered as a thesis for the degree of Bachelor of Science in Engineering and Economics.

Industrial Bureaus are an innovation in Chamber of Commerce work; they are as yet in an experimental stage of development. It is the purpose of the following pages to discuss and analyze the problem of industrial development and to show the place occupied by the Industrial Bureau in its solution.

The writer takes occasion at this point to express his appreciation to Professor Seward C. Simons, whose invaluable advice and assistance made this work possible.

Respectfully submitted,

Al. Askenasy
May 2, 1917.

Chapter I

I N T R O D U C T I O N

An investigation into the causes for the existence of cities leads to the conclusion that they are built to function in one or all of three different ways, political, commercial, and industrial. Communities existing solely for political reasons are few in number; the City of Washington is a good example of this type. Of course all cities function politically to some extent; they must look after the interests of their inhabitants and exercise governmental control. One may, however, safely say that urban growth is due in the great majority of cases to the demands of commerce and industry. Even summer resorts fall in this category, for they commercialize their natural advantages to as great a degree as do cities of the commercial and industrial type.

With the advent of machinery and the factory system in the nineteenth century urban population increased by leaps and bounds. Production, which had formerly been accomplished in millions of homes throughout the land, was concentrated into small areas by reason of the new industrial unit, the factory. Cities which had formerly played only the commercial role of distribution, were assigned a new task, that of production. It is a task which every commu-

nity situated advantageously from an industrial viewpoint must perform. Any shirking of this work means that an un-businesslike policy is being followed out in the use of their natural assets. Industrial payrolls are an advantage to any city; payrolls mean people, people mean demand for goods, demand for goods means industries, industries mean payrolls and every effort should be made to acquire them on a legitimate basis.

In actual practice it is next to impossible to separate commerce from industry. One may theorize and make definitions as to just what constitutes industrial or commercial effort but in everyday life they are linked so close together that hard and fast lines can not be drawn. A city possessing advantages from a distributive or commercial standpoint is in a majority of cases a good city for the location of industries. The converse is also true; for a locality which possesses natural assets from an industrial viewpoint will ultimately attract the means of transportation; and commerce will result. We may safely conclude that sound urban growth depends largely upon the right sort of industrial development.

An industry, however, should not be persuaded to establish itself in a certain locality merely to make its payrolls an asset to that community. The advantages which will accrue to the industry should be the criterion. For

its location will, in the majority of cases, materially affect its cost of doing business. Hence if factories are located in a haphazard and unscientific manner the nation as a whole will pay the price because of a general increase in the cost of production. From this we see that sound industrial development is not only a local but also a national necessity. Germany owes her wonderful industrial growth and commercial success to the efficient and conscientious manner in which she has dealt with this problem.

In times past industrial enterprises worked on a comparatively large margin of profit and the economies of location did not seriously affect the balance sheet one way or the other. Under the stress of modern competitive business, however, the margin of profit has decreased materially so that today the factor of location has an impressive effect upon the financial statements of a concern. We are coming more and more to realize that this problem requires the application of scientific method; that industrial development is a science in every sense of the word. Dr. F. M. Taylor, the father of Scientific Management, often stated that there is a "best way" of doing a piece of work, that that "best way" should be found by experiment and scientific analysis, and the work should be done accordingly. In like manner there is a "best location" for every industrial unit. The finding of this "best location" is a science; it is important that this science be developed.

The aim of the Industrial Bureau should be to investigate and experiment with this science, and apply the principles evolved. This work is of the highest importance to the community and should not be left to the discretion of untrained workers. It requires the attention of men who have had both commercial and technical experience; men who have acquired the scientific habit of thought in dealing with problems. A science must be handled by scientists. (The organization and work of the Industrial Bureau will be discussed fully in the body of the text.)

The feeling that industrial development is a necessity gives rise to keen competition between commercial organizations of different cities for the location of new industries. In the majority of cases the economics of location are entirely lost sight of in the greed and desire to bring additional payrolls to their locality. A community may be successful through unscrupulous bidding in locating a new industry in its midst. The factory may thrive for a time, but if it is situated at a disadvantage economically it will ultimately be forced to close its doors. The city will suffer the stigma of a failure and actual financial loss. A policy of this kind if followed will not only have a disastrous effect upon the specific community but will also be detrimental to the welfare of the nation, for industrial development has not only a local but also a national influence.

Competition between cities for new industries, if based upon a scientific and honest attitude, is not only permissible but commendable. Every Industrial Bureau should have at heart the development of its district industrially; no stone should be left unturned in accomplishing this end. The Bureau should function as the salesman of the industrial advantages of that locality. A salesman who sells something he doesn't possess is a swindler and a public enemy; so an Industrial Bureau which attempts to sell industrial advantages that do not exist may be classed in the same category. A policy of honesty and straightforwardness can not be over-emphasized.

Conservatism is a quality which ranks second only to honesty in conducting the work of a Bureau. The science of industrial development is only in the infant stage as yet, and it will require many years of careful observation and work before it will develop to a point where one may rely upon it with confidence. Until that time is reached a Bureau will do well to adopt the "watch your step" policy of conservatism,--conservatism not only in its application of the principles of this science, but conservatism in the collection and publication of information and data.

The influence of sound industrial growth upon the nation has been touched upon in some of the preceding paragraphs. The importance of this influence can not be overestimated. It will be through a policy of co-operation rather

than one of antagonism that the best work in this field will be accomplished. This spirit of co-operation may be fostered by constant contact and friendly interchanges between the different Bureaus. Every Bureau should know what every other Bureau is doing and how it is accomplishing its work, in order that it may function at its highest efficiency.

In conclusion: An Industrial Bureau can adopt no better motto than the following:

"Better lose The Industry,
Than have The Industry lose."

PART ONE

T H E P R O B L E M

Chapter 2

The Problem of Location from the Viewpoint of the Industry.

The success or failure of an industrial enterprise depends to a large extent upon its selection of a location. Of course, equipment, organization, finances, and management are all factors which will materially affect the ultimate profitableness of the investment. Good location, however, is of prime importance. If this is neglected, or the site wrongly determined, the industry will labor from the beginning under a tremendous disadvantage, no matter how well the plant is equipped, organized, financed, and managed. While any one of the last mentioned factors may be altered with perhaps some, but proportionally small, expense; once the site is established, a change is in the majority of cases an utter financial impossibility. It is therefore imperative that a prospective industry make its selection of locality only after a comprehensive and scientific analysis has been made of its needs. It will be the purpose in the following pages to make an analysis of this problem, the elements of which may conveniently be grouped under the following ten heads:

1. Markets
2. Materials
3. Labor
4. Power
5. Transportation Facilities

6. Financial Facilities
7. Public Conditions and Services
8. Attitude of Community
9. Special Inducements
10. Climate

Each topic will be treated in detail; Los Angeles being taken as an example of an industrial district and an attempt being made in a general way to give some information with reference to that city. (See Chart #1)

MARKETS

By far of greatest importance in considering a location for an industry is the element of nearness to markets. This follows as a natural consequence from the very purpose for which factories are created, i. e. to produce a saleable product. In many cases this one element may be so preponderant that it alone will determine the choice of location. This will usually be the case when the finished article contains large amounts of the raw materials entering into its production.

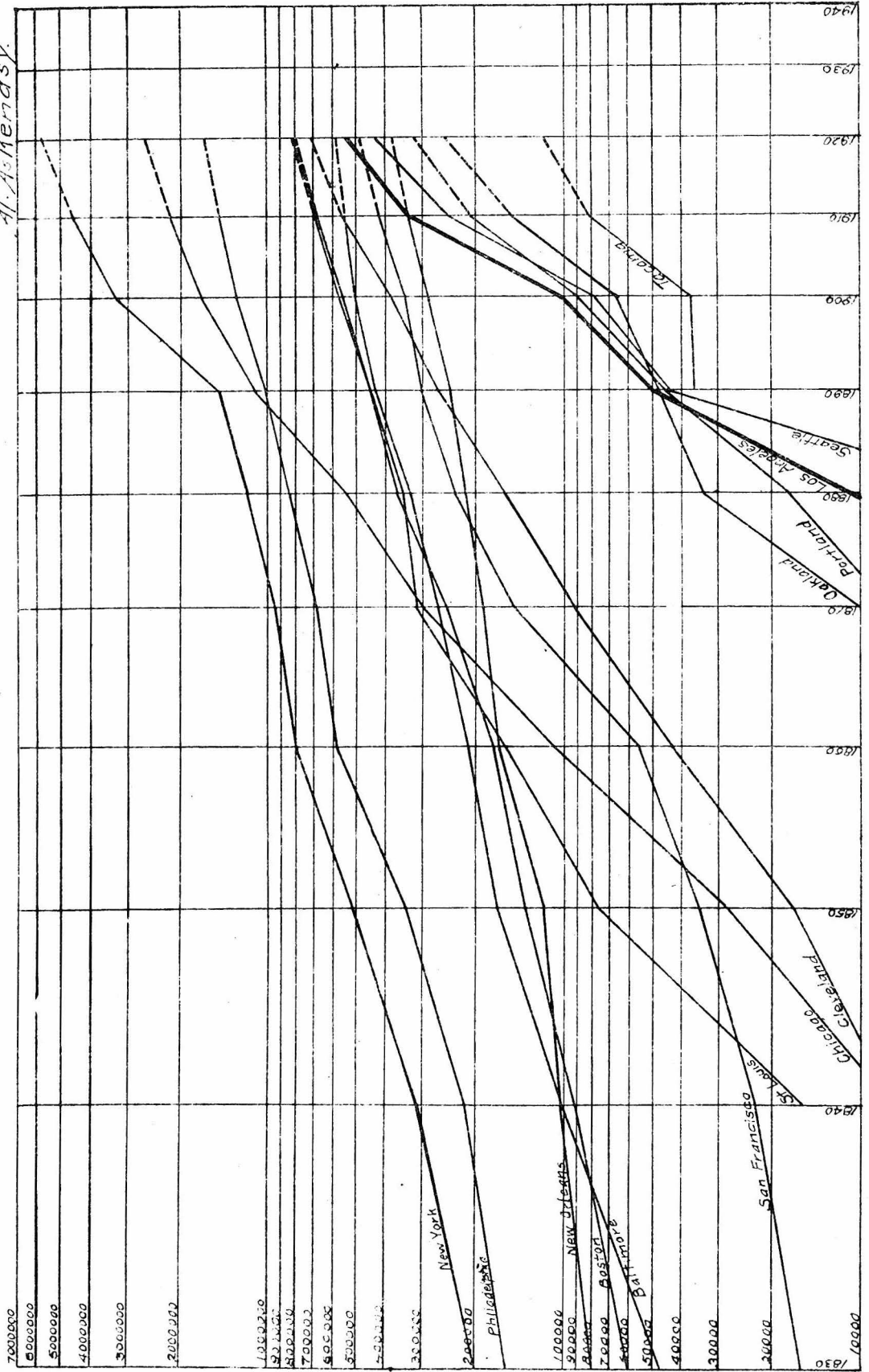
It is advantageous for an industry to be established near to its markets, not only from a standpoint of saving in transportation charges, but also because of the greater ease, ability, and satisfaction with which it can handle the selling end of the business. Proximity will help it to keep in touch with the trend and demands of the

CHART No. 2

Logarithmic Chart Showing Growth in Population of Principle Cities of United States.

U.S. CENSUS 1910

NOTE: Dotted Lines Indicate Future Growth if the Rate of the Last Decade Continues
A. A. Henrasy



market better than any other substitute such as that of a local agent; while it will also be enabled to make deliveries with greater surety and dispatch to the satisfaction of all concerned, especially to the customer.

The question of markets divides itself naturally into two branches, local and foreign. Local markets may be said to include those within the industrial district and those which may be reached by short railway hauls or motor transportation. The local market of an industry establishing itself in Los Angeles would include not only the city proper but practically all of Southern California.

A factory, in considering the local market, will be influenced by one or all of the following three factors:

(1) Population

If its products are such that they command household or very common usage, such as the output of a soap factory, the size of the locality with reference to population must be seriously considered. Not only should note be taken of its present value but also of the possibilities of its growth. (See Chart #2)

(2) Other industries

This is a governing factor in enterprises which have for their purpose the manufacturing of a product which is essential in the operation of other industries. Since the majority of industrial enterprises are thus dependant, this factor has very wide application. A good example of

this type is the manufacturer of brake-lining for automobiles. It will be to his advantage to locate near automobile assembling plants.

(3) Special characteristics of the district

Each district has its special demands which must be considered. The producer of farming implements should not attempt to locate in a mining district but should seek an agricultural community.

Foreign markets are those which are not of a local character. San Francisco would be considered a foreign market by a manufacturer in Los Angeles. The choice of a district by a factory seeking foreign trade should rest upon the advantages of that locality from the standpoint of distances and transportation facilities. (Transportation will be discussed in a subsequent part of the text.)

MATERIALS

Second only in importance to proximity to markets is the factor of nearness to the source of the materials necessary for production. When the quantity of raw material essential in the operation is large as compared with that of the finished product, this factor must be given serious consideration, and it will in many cases be the determining element influencing the selection of the site. The saving in transportation charges is quite evident. The proximity to the source of material is an added advantage to the manufacturer in that he may estimate with a

great deal more reliance the time of shipments, and also has a stronger hold upon his source.

A study of the source of materials may be made under three heads, quality, quantity, and emergency sources. In considering quantity allowance must be made for the possibility of expansion and growth of business. Emergency sources is a very important detail, for the regular source may give out at some time, or through unfortunate unforeseen circumstances may be made temporarily or permanently unproductive.

From a very rough consideration of the possibilities of Southern California in this regard the writer has concluded that a woolen or a cotton mill of considerable size could be located there upon a profitable basis. Enormous deposits rich in iron ore have been found within a short distance from Los Angeles but it has been considered as yet unprofitable to use them because of the prohibitive cost of transporting coal from the east. If some method were found by which this ore could be reduced by the use of oil the iron industry would immediately become a profitable venture in this locality. This also would be the case if the ore deposits around Lake Superior became exhausted.

LABOR

Another factor which demands extremely serious consideration on the part of a prospective industry is that of labor. A satisfied, efficient, and well organized working

force is indispensable to an industrial enterprise. What a factory desires is a sufficient quantity of workers of the right quality. In addition it would be of potential worth to the concern if it could have the advantage of a labor market of great stability from which it might replenish or add to its working force.

An investigation of the labor conditions in a certain locality with reference to a particular industry may be best accomplished along the four following lines:

(1) Proximity to like industries

Labor has been one of the fundamental reasons for the localization of many of our industries. Factories desiring a supply of skilled labor will find it in sufficient quantities only in districts wherein manufacturing of similar nature is being conducted. Factory operatives out of employment are loath to leave the district where their work predominates. The chances of obtaining employment are better if they remain. It is true that many of these workers do leave these districts and enter other lines of employment elsewhere. But any industry which bases the plans of the mobilization of its working force upon this fact will find in the end that it has made a gross mistake.

It has been repeatedly said of Southern California that it is the melting pot of all the industrial districts in the east; and that an advertisement in the paper or any

other like means could be made instrumental in obtaining a working force in almost any industry. That may be possible but it is highly improbable. It will be found that even though this great variety of workers does exist that they have found satisfactory employment in other lines from which it will be hard, if at all possible, to induce them to leave. The only means by which an industry having such a requirement could locate in this vicinity is through importation of its working forces. Labor organizations are a great help in accomplishing this result. A good example of what can be done along this line is the Torrance Window Glass Co. This concern brought all of its glass blowers from the glass districts of Indiana and Ohio.

The disadvantage to an industry locating in a non-specialized locality consists not only of the difficulty of obtaining the labor in the first place, but also in the fact that the operatives, once obtained, have the factory at their mercy, for a short time at least. This problem demands extremely serious consideration on the part of a prospective industry.

(2) Excess labor

Some industries require a large number of women operatives. Such concerns will find that they can locate advantageously in a locality wherein a great many men are employed industrially. They will be able to mobilize a large number of women from the working men's families on

very good terms. These people will consider it a great boon to be able to thus increase their income.

(3) Open or closed shop

Union labor organizations vitally affect the relations of employer to employee; and in the majority of cases are the cause of a higher rate of wage being paid per unit of labor. Industries as a rule prefer a non-union working force. An investigation of this factor does not only entail a study of the existing labor organization for that particular industry but also the attitude of the community on this question. (It is not within the province of this work to discuss the ethics or the pro and cons of Union Labor Organization.)

(4) Wages

Wages materially affect the cost of production, so that it is of prime importance that a prospective industry have as complete information with reference to wage conditions as possible. The cost of living plays an important role in this question. As a rule low wages will prevail in a community favored with a low cost of living.

POWER

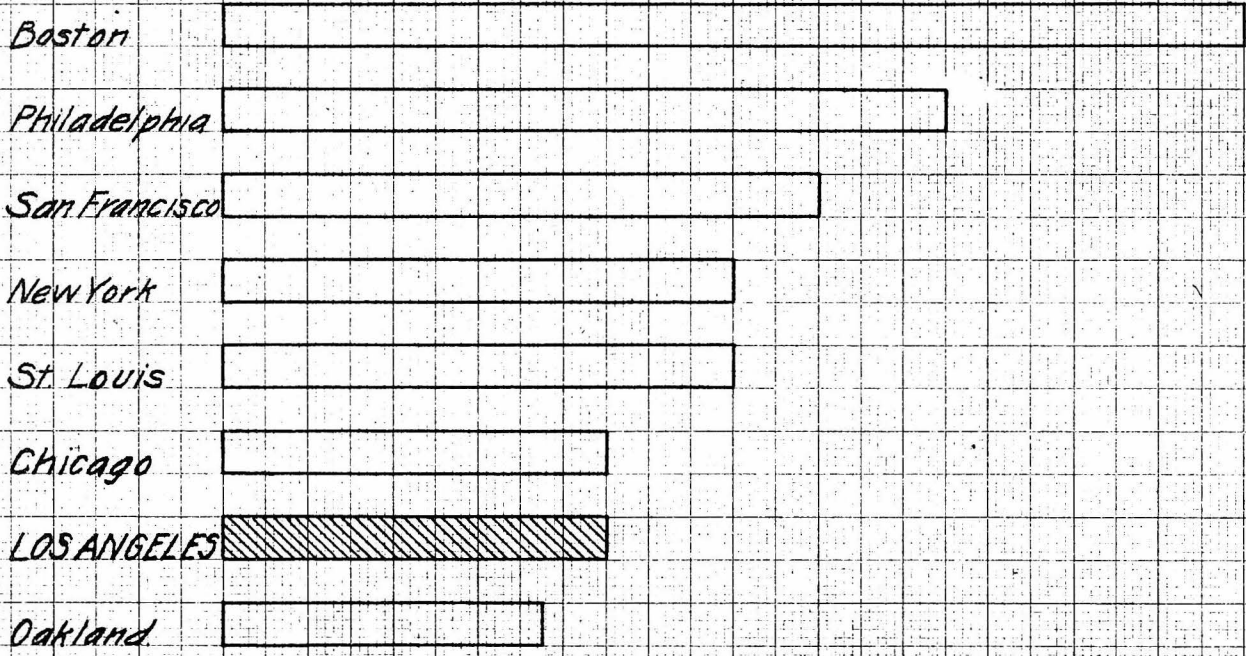
The cost of power is of vital concern to an industrial enterprise. And because of the great variance of this charge in different localities, close and careful attention should be given this factor. To many industries, in which power cost is a large percentage of the cost of

CHART #3

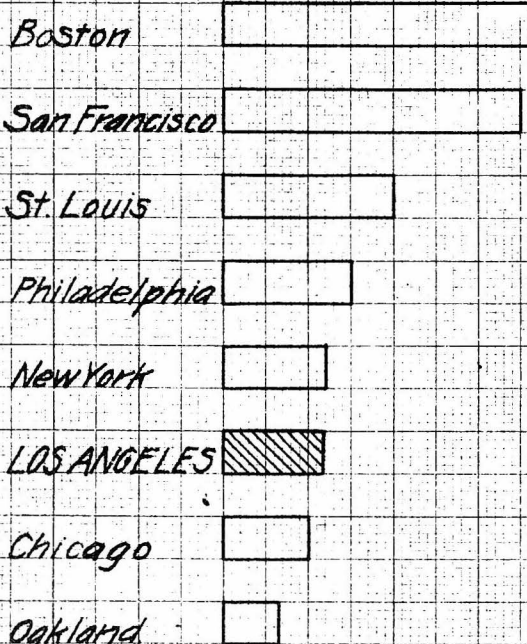
COMPARATIVE ELECTRIC RATES

Compiled from the Los Angeles
BOARD OF PUBLIC UTILITIES REPORT FOR 1916

MAXIMUM COMMERCIAL RATES



MINIMUM COMMERCIAL RATES



□ = 1¢/KWH

Al. Askenasy

Negative 2

H.W. Wiley, Glen Ridge, N.J.

production, power will be the governing factor in the choice of location. Most of the factories have been established in Niagara Falls because of the cheap power available. A prospective industry should investigate and acquire all the information possible as to price of water power, electricity, oil, gas, wood, and coal. (See Chart #3)

TRANSPORTATION FACILITIES

The transportation facilities of a district must be investigated with a great deal of care. They play an extremely important role in the conduct of any enterprise. This subject lends itself to the following division:

(1) Water

Without a doubt, water transportation is by far the cheapest. The most extensive use should be made of it whenever available. Los Angeles, realizing the value of this mode of transit for coastwise and the Atlantic seaboard trade and its absolute necessity for foreign trade, has since 1910, voted \$5,500,000 for harbor improvement, and is pledged to expend a total of \$10,000,000 for such work before 1920. This is located within twenty miles of the business section. It is entirely within the municipal boundary, the so-called "shoe-string" strip forming the connecting link. This harbor is of the most modern design, protected from the open sea by a breakwater built at a cost of \$3,100,000 by the United States Government; it is deep enough to accommodate the largest of ships; it is amply

supplied with wharves and docks; and has an abundance of level land surrounding it which may be used for the location of warehouses, industries and rail terminals.

The City of Los Angeles believes in municipal control and development of its port. It proposes to make its facilities the best possible, and to lower the cost of handling traffic to a minimum, so as to encourage commerce and industry. To accomplish this end it has acquired the ownership of a large portion of the water frontage, which it has been, and is developing with all modern port conveniences and necessities. One of the outstanding and commendable features is the union terminal facilities which have been provided by arrangement with the Pacific Electric Railway Co. by which the Company has contracted to do all the terminal work for a very reasonable charge.

Los Angeles is the first port north of the Panama Canal having adequate inland rail facilities, thus making it the logical port of call for a great number of vessels plying this route. The European war has had a very depressing effect upon the commerce of this port, because of the great demand for tonnage on the Atlantic. However, after conditions are readjusted and commerce again resumes its normal volume on the Pacific, the Port of Los Angeles will come into its own.

(2) Transcontinental railroads

Los Angeles is the terminal of three trunk lines:

the Santa Fe, the Southern Pacific, and the Salt Lake roads. Thus, it affords ample facilities for long distance rail transportation. The grades prevalent between the East and the West are by far the lowest on the Los Angeles routes, thus allowing a more economical operation of freight trains.

Plans are now being seriously considered for the formation of a Union Terminal by segregating the terminals of all the roads along the Los Angeles River, thereby relieving the city of a large number of grade crossings, permitting more efficient operation of terminal traffic, and providing for the entry of future railroads. A prospective industry should consider the advantages of a Union Terminal seriously.

(3) Local rail transportation

Los Angeles, in the Pacific Electric, is blessed with one of the best, most efficiently operated, and largest inter-urban systems in the country. The advantages of such a system are many. Not only does it serve as an agent for the carrying of freight, but it also helps to unify the district and promote commerce in the city.

(4) Highways

Motor vehicle transportation is coming to be used more and more extensively every year by industries. Los Angeles has perhaps more advantages to offer along this line than any other locality in the country. There are over five hundred miles of paved county highway in Los Angeles County

alone. This excepts the city streets and the State highway system. Adjacent counties are similarly well provided.

On the whole one may say that Los Angeles is very well situated from the standpoint of industrial transportation.

FINANCIAL FACILITIES

This topic demands consideration under the following two heads:

(1) Facility of promotion

This factor is of very material importance to many industries in a stage of financial organization and also to old ones which are planning to expand. The financial ability of a locality to do this work is extremely hard to determine from a general survey. However, the attitude and policy of the local commercial banks and the general trend of investments may be used as a fair criterion. An investment department operated by the Industrial Bureau, could be made a great help not only in the furnishing of information of a financial character but also in the obtaining of funds. (The Investment Bureau will be discussed fully later in the text.)

(2) Banking facilities

Banking facilities may be said to be adequate if they are able to serve in the efficient handling of the payrolls and if they can satisfy the needs of business loans

which will arise. A careful analysis of the statistics pertaining to the transactions of the banks will be of inestimable help in determining the adequacy of the banking facilities.

PUBLIC CONDITIONS AND SERVICES

These conditions have a very direct bearing upon the cost of doing business and should be studied thoroughly. They are divided for the purpose of analysis as follows:

(1) Tax rate

In investigating tax rates the basis of assessment should be kept in mind and taken into account when comparing the rates of two or more districts. The tax rate in the city of Los Angeles for 1916 was \$1.45 on an assessment basis of 50%; in the County the rate for the same year was \$1.47 on the same basis of assessment. There are a number of industrial districts in the vicinity of Los Angeles, some of them on the outskirts of the city, offering practically all the advantages of the city, combined with a much lower tax rate.

(2) Fire protection

This factor is extremely important, for insurance rates vary inversely with the degree of fire protection afforded.

(3) Character of government

The fact that a municipality enjoys good or bad government also has a bearing upon the industry. The welfare,

CHART #4

COMPARATIVE WATER RATES

Compiled from the Los Angeles

BOARD OF PUBLIC UTILITIES REPORT FOR 1916

San Francisco

Oakland

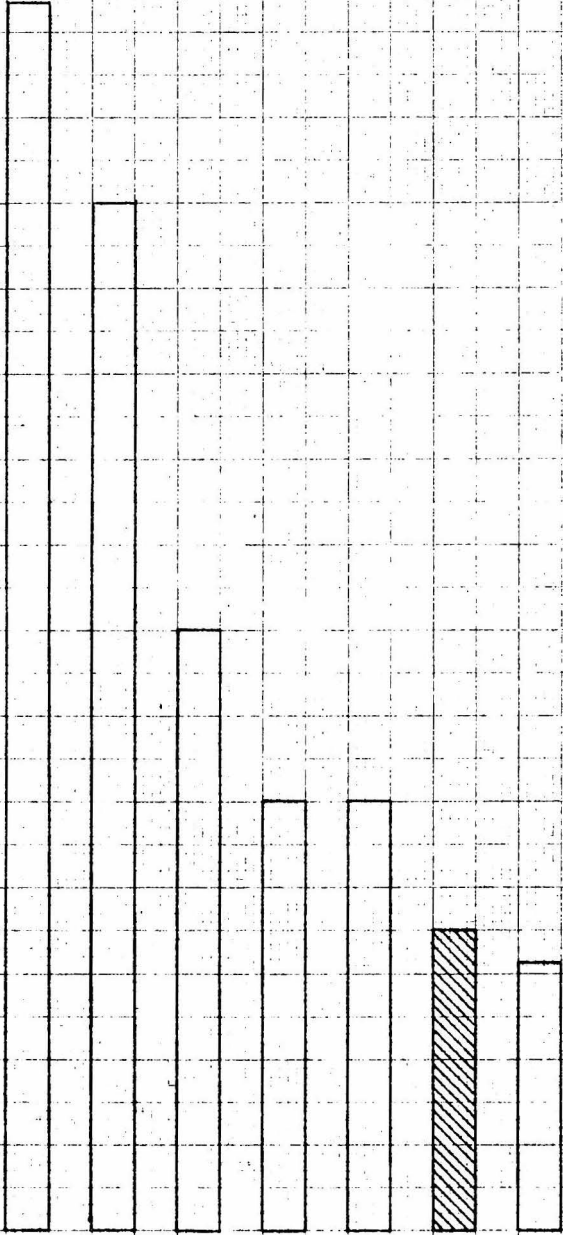
Boston

Cleveland

New York

LOS ANGELES

Chicago



□ = 1¢/c.f.

Al. Alsterhaus

recreation, healthfulness and education of its employees depend to a large extent upon the administration of the city.

(4) Water service

As some industries require water answering certain specifications, it is evident that quality and quantity as well as price must be considered with reference to water service. (See Chart #4)

(5) Sewerage

This factor plays an important role not only in the sanitation of a plant but also in the disposal of many wastes. To some industries adequate sewerage provisions will be an absolute necessity.

(6) Advertising value

Many districts contain objects of wide interest, which serve to attract a great many tourists. They serve to advertise the industries located near them. Niagara Falls is a good example of this type of locality.

ATTITUDE OF THE COMMUNITY

It would be very unwise upon the part of an industry to attempt a location in a community where there is a general sentiment, although no prohibitive law, against such an action. Thus the location of a brewery or winery in a community wherein the "dry" element is strong and promises greater strength in the future, even though legally

possible, would be an extremely poor policy to follow. Such a condition will very rarely occur; but when it does, it should be given very serious consideration. The co-operation of the community is essential to the well-being of the industry.

SPECIAL INDUCEMENTS

Sometimes cities, in their desire to add to the number of smokestacks, offer very lucrative inducements to industries seeking locations. (Los Angeles, however, does not make a practice of doing this.) These may take the form of:

- (1) Free or very cheap land,
- (2) Free or partly free buildings,
- (3) Exemption from taxes for a certain time,
- (4) Cash bonus,
- (5) Subscription to the stock of the corporation,
- (6) Free services for a given period, and
- (7) Moving expenses, if the industry is already established in another locality.

It is well for a factory to consider these offers; but they should assume only secondary consideration in making the choice of location. Economic advantages should always be considered first. (More will be said of these practices later in the text.)

CLIMATE

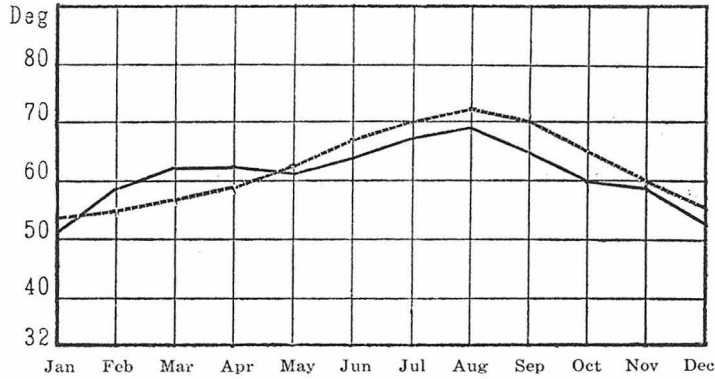
Climatic conditions are of great importance to a

CHART No. 5

CLIMATIC CONDITIONS IN LOS ANGELES

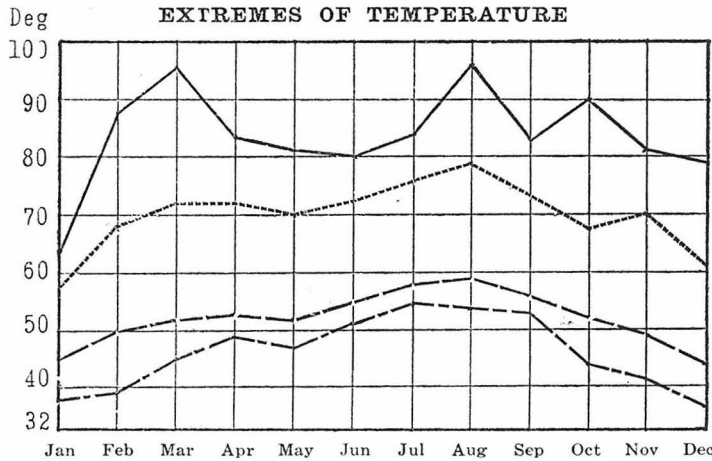
NOTE: These reprints are used with the kind permission
of the local office of the U. S. Weather Bureau.

MEAN TEMPERATURE



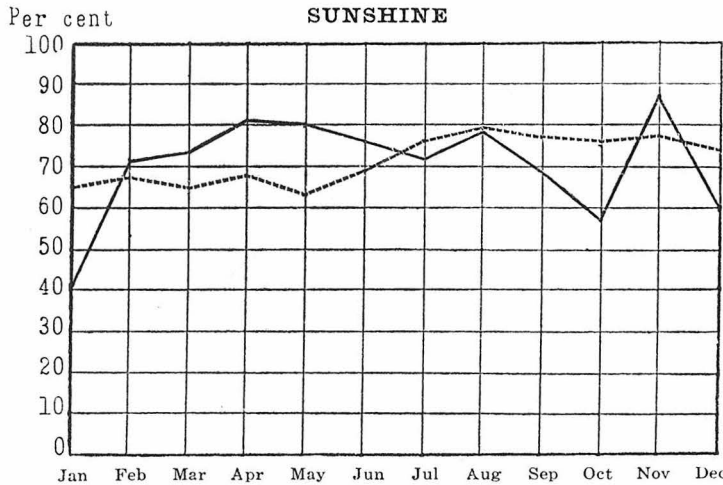
Continuous line indicates the mean monthly temperature in degrees Fahr. for 1916; broken line, normal.

EXTREMES OF TEMPERATURE



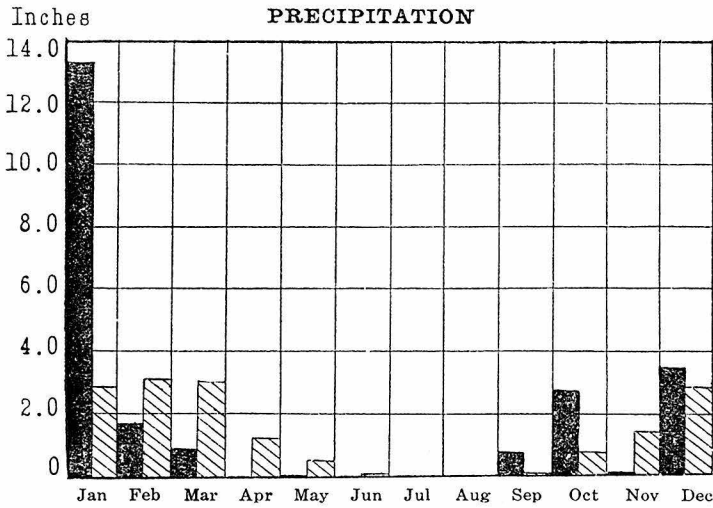
In their order the lines in the chart represent the highest; mean monthly maximum; mean monthly minimum, and the lowest temperature for each month.

SUNSHINE

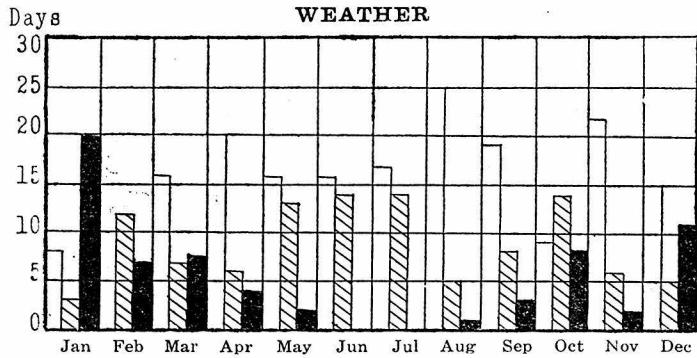


PERCENTAGE OF POSSIBLE SUNSHINE.—Continuous line indicates monthly sunshine for 1916; broken line, normal.

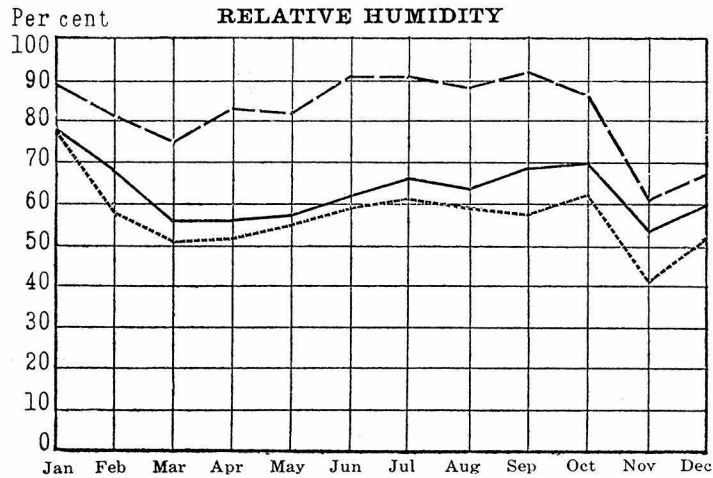
Reprints from the plates of the Annual Meteorological Summary, 1916, for Los Angeles, Cal., Ford A. Carpenter, Meteorologist, U. S. Weather Bureau



Heights of columns indicate total monthly precipitation, in inches; solid columns precipitation for 1916; shaded columns, normal for 39 years.



Open columns indicate monthly number of clear days; shaded columns, partly cloudy days, and black columns cloudy days for 1916.



In their order the lines in the chart represent the relative humidity in percentage of saturation; the 5 a. m. the 5 p. m., and 12 noon observations.

Reprints from the plates of the Annual Meteorological Summary, 1916, for Los Angeles, Cal., Ford A. Carpenter, Meteorologist, U. S. Weather Bureau.

few industries and of general importance to all. They may be discussed under the following heads:

(1) Effect on the efficiency of employees

It is a universally acknowledged fact that people will work better under certain climatic conditions. However, this is not a very influential factor, although desirable.

(2) Effect of humidity and temperature upon the processes

Some industries require certain humidity and temperature conditions to be present during some or all of their processes. They actually employ mechanical means to obtain these conditions. If it were possible to find a locality wherein nature accomplished these functions, for at least a good part of the time, a great saving would result.

(3) Saving in first cost

If a climate is temperate and remains so throughout the year, a great saving will result from the construction of less substantial buildings and from the omission of unnecessary heating appliances.

(4) Saving in operation

A great saving in operation will be accomplished if the sun can be relied upon to furnish heat and light a good part of the year.

Los Angeles is blessed with a wonderful climate. The two extremes of heat and cold are relatively unknown

to this part of the country. One may safely say that in Los Angeles "climate helps industry most."

CONCLUSION

In actual practice it is practically impossible for industries to find all of these factors at their best in one locality. If they wish to be near to their source of material they may find themselves far from their markets or vice versa. The problem is very complicated and involved. It demands the attention of experts, men who are able to deal with it as it should be dealt with, scientifically.

Information should be conscientiously collected with reference to each element. A balance sheet should then be constructed for each prospective locality with its advantages listed as assets and its shortcomings as liabilities. The statements so obtained should be studied with the same care that actual financial statements of business concerns are accorded when the investment of money is being considered. The accurate and scientific manner in which such an investigation should be conducted can not be over-emphasized. The locality possessing the balance sheet which shows up best under this close scrutiny, should be selected for the establishment of the industry in question.

Chapter 3

Some Aspects of the Industrial Problem from the City Standpoint

A city neglecting to develop and capitalize its industrial advantages is conducting itself in the same manner as the man who keeps his money at home or in a safe-deposit vault; not only does the man lose the returns which his money might earn if placed upon the market, but the community at large is made to suffer with him because of higher interest rates. So also is the case of the city; for not only does the community lose the advantages which would accrue from the development of its industrial potentialities, such as increased payrolls, increased local commerce, cheaper transportation, etc., but the entire nation is forced to pay a higher price for its commodities because of this shortsighted policy and lack of development.

The industrial problem is as vital to a city as that of location is to an industry. As was indicated in Chapter One, the very existence of an urban community is due in a large measure to the industrial activity within its boundaries. The necessity of basing this activity upon sound economic principles can not be overestimated and should always be borne in mind. But aside from this, there are a number of problems pertaining to its industrial growth which every community will be called upon at some time or other to solve. It will be the purpose of this chapter to

discuss in a very general way a few of the most important questions which may arise.

LOCALIZATION OF INDUSTRIES

Due to the many advantages which some districts are able to offer to certain industries, there has been a tendency on the part of the favored industries to establish themselves in those localities to the exclusion of all other manufacturing enterprises. Pittsburgh is a notable example of a city which has been affected by this tendency. Its principal and practically only output until very recently has been steel products. Many other communities throughout the country are similarly affected. This phenomenon is a natural one and is economically sound. The great danger of allowing industrial development of this character to occur lies in the fact that it places the very life of the community at the mercy of one industry. Should that industry experience a decline or a slump over a certain period the prosperity of practically the entire community would be similarly affected.

Localization of industries will also have the secondary effect of stunting industrial growth in other fields for which that locality is suited. There will be a tendency on the part of the people to think that the development of their district is progressing normally and no effort will be made to attract and build up other manufacturing interests.

A city should consider this problem with great care, for it is of tremendous importance. Its solution will be accomplished only by a constructive policy for developing all the industrial resources of that district to their fullest possible extent.

HOUSING

Perhaps the most important civic problem brought about by industrial growth is that of housing the working people. German cities, through their wonderful civic unity and municipal ownership of land, have made great strides in the satisfactory solution of this difficulty. American cities, however, are far behind their sisters in Germany in the program for adequate housing facilities.

The influx of factory workers into a city causes an increase in the value of land totally out of proportion to the increase in population. This high price of land gives rise to congestion and unsanitary living conditions; land is overcrowded with buildings, which shut out light and air; and in some cases as many as fourteen or sixteen people are crowded together, trying to live in three or four rooms.

This problem should command the best thought and effort that a city can muster, for if conditions of this character are allowed to prevail, not only will the community suffer from disease epidemics, and misfortunes of like nature, but the very virility of the nation will be attacked.

LABOR DIFFICULTIES

One of the by-products of our modern factory system has been the ever-occurring misunderstandings between the employer and employee. These differences, through acts of violence, have at times threatened the very social foundations of a city, its law and order.

Thorough co-operation coupled with a stern determination on the part of all the citizens is necessary to deal with this difficulty. If this problem is not handled in the right manner, it may mean the failure of that locality industrially.

CITY PLAN

Once thought of as a luxury, a city plan is now conceded, by a majority of right-thinking people, to be an absolute necessity. A comprehensive plan should make provision for the abolition of grade crossings as far as possible; for ample transportation facilities; for parks, playgrounds, and various other items concerned with the layout of the city and the welfare of the people. City planning has been one of the factors which has made the German city so efficient industrially, for it has a direct bearing on practically every industry located within the district.

SMOKE NUISANCE

Chicago and a number of other large industrial centers in the East are experiencing great difficulty in dealing with the smoke nuisance. In a report published

in 1915 by the Committee of Investigation on Smoke Abatement appointed by the Chicago Association of Commerce, the following statement is made:-

"The industrial activity of all important cities has brought about an increase in coal consumption which is greater than the increase in population. Smoke formation and the consequent pollution of the atmosphere by smoke have in recent years tended to increase and have done so, except so far as the adoption of various measures in smoke prevention have proved effective.---"

Another interesting point brought out in the same investigation was the fact that the steam roads caused approximately 23% of the smoke in the city of Chicago.

The city layout should be planned so that the prevailing winds will not carry the smoke, caused in the industrial section, over the residential and business portion of the city. The ultimate solution of this problem lies in the electrification of the railroads and in ordinances regulating the time and duration of firing in the factories.

EFFECT ON TRANSPORTATION

The advent of industries in a community will affect materially the transportation within the city. The increase in the number of workers will cause congestion in the morning and evening hours when they travel to and from their work. This is a serious difficulty which practically

every large city has to face.

There is, in addition, an effect of a different character upon the city's transportation. The coming of industries inevitably gives new importance to the provision for more frequent, rapid, and inexpensive freight service. The extension of such facilities has, of course, a very beneficial influence upon the already established business activities of the city, as well as giving the business men the quicker passenger service which is often so important.

EDUCATION

It is safe to say that extensive industrial development will inevitably be accompanied by an influx of a low class of citizens into a city. No preventive measures are possible. It is, however, the duty of the city to improve their mental capacity and make better citizens of these people after they have become part of the community. To that end schools should be established to teach foreigners our language and to carry on any other educational work required. SEE BOZORTH 1922

CONCLUSION

Big industries will bring with them "big men" who are indispensable to the civic life of a community. Men like Patterson, of the National Cash Register Co. and Schwab of the Bethlehem Steel Co., are a tremendous asset to a city. They have vision; they have the capacity to initiate and undertake civic improvements on a large scale. The experience

of Dayton under the beneficent dictatorship of Patterson at the time of the great flood is a noteworthy example of what a big man can do for a city. He was in a large measure responsible for the installation of the City Manager plan in that community. Industrial activity breeds men of that type.

An effort has been made in the last few pages to give some idea as to the kind and character of problems industrial development will force upon the city. These will vary with each locality; the housing problem will be different in Los Angeles than it would in Philadelphia; Chicago will experience difficulties which are and will perhaps always be foreign to Detroit, only a few hundred miles away.

It is possible to formulate a few general principles which will be found applicable to practically all localities. In considering any local question, these principles should be kept in mind and should form the backbone of the investigation. The work should be conducted on a scientific basis and with an eye for the future. Planning for the future is absolutely essential.

PART TWO

THE INDUSTRIAL BUREAU: A SOLUTION

Chapter 4

Work and Methods of an Industrial Bureau.

The purpose of the Industrial Bureau is to develop the district industrially in accordance with scientific principles so as to obtain the best results for the city and the industry. To accomplish this end its work may be logically divided into the following four parts:

FIRST: It must obtain and tabulate all the information possible with reference to the industrial interests of the district.

SECOND: It must formulate and put into practice an aggressive, yet sound policy for the promotion of all the industrial possibilities of the district, through the location of new industries.

THIRD: It must devise ways and means for helping the established industries by co-operating with them in their work and by creating new possibilities for their plants and products.

FOURTH: It must take an active part in any civic propaganda affecting the industrial development.

It will be the object of this chapter to outline the work of, and show some of the methods in use by Industrial Bureaus.

I OBTAINING AND TABULATING INFORMATION

Perhaps the greater part of the work of the Bureau

may be classified under this head. As has been said earlier in this discussion, the Bureau should consider itself an agent for selling the industrial opportunities of its district. In order to sell intelligently, one must necessarily know the quality and quantity of the goods. The only possible means of determining these things is by taking an inventory. This will be the first task confronting a new Industrial Bureau; it is a constant task of every Bureau, for this inventory must be of the perpetual kind in order to be effective. As these inventories, or surveys, as they are more commonly termed, compose the bulk of the experimental or laboratory side of the science of industrial development, the work must be conducted in a thorough and conscientious manner.

Surveys may be made in any field which the Bureau feels called upon to investigate. Some of the following surveys, however, are absolutely essential to the purpose of the Bureau, and should be undertaken as soon as possible after its organization.

(1) Survey of Resources

This survey should result in the collection of all the data possible upon the agricultural, mining, live stock, and all other raw material resources, not only of the district itself, but also of the contingent territory

if its data is significant. A survey of the resources of the Los Angeles district would perhaps include a large section of California and parts of New Mexico and Arizona.

This is not as great a task as it may appear to be from the preceding statement, for by far the greater part of this information can be obtained with sufficient accuracy from the government, from exchanges, and from local centers

(2) Survey of Markets

The work under this head may be said to consist in obtaining data of the quantities of products consumed by the local public. Most of this information can be obtained directly from the wholesale and jobbing houses. Estimates made by reputable business men actively engaged in the various fields investigated, may be deemed sufficient to answer the purpose.

(3) Survey of Labor

The object of this survey is to ascertain for the district

- (a) the percentage of skilled and unskilled labor,
- (b) the percentage of open and closed shop operatives,
- (c) the number of women and children employed,
- (d) the nationalities of the working population,

- (e) the percentage of married and unmarried workers,
- (f) the number and character of the union labor organizations, and
- (g) the prevailing wage for all kinds of work.

(4) Survey of Industries

This survey should be made with the following objects in view:

- (a) To ascertain the amount of capital invested in each enterprise.
- (b) To ascertain the value of the annual production of each enterprise.
- (c) To ascertain the quantity and kind of material used in production and from where obtained.
- (d) To ascertain the markets wherein each industry disposes of its product.
- (e) To ascertain the labor conditions for each industry.
- (f) To determine power and fuel charges for each industry.

(5) Survey of Industrial Sites and Building Conditions.

An accurate list should be made and kept of all sites and empty buildings in the district which may be put

to industrial purposes. It is a good plan to make maps of the industrial district in conjunction with this work. These maps should be made in sections, and on a scale of about a hundred feet to the inch; they should show every building, its character of construction, number of stories, all the freight yards, spur tracks, character of pavement and services, and any other information which would be of interest to a prospective manufacturer and which can be depicted graphically. By a system of cross indexing, references should be made from the maps to a card index file containing information as to the cost, size, rent, insurance, interest, owner's name, terms and other data relative to available factory sites and buildings. The Bureau should also acquaint itself with building conditions in the locality, and should be able to make rough estimates of cost of constructing plants, based on this knowledge.

(6) General Information

In addition to the aforementioned surveys, it will be found necessary to gather and compile data in a number of other fields, of which the following are the most important: population; transportation, including not only facilities but also freight rates, etc.; financial facilities; services; living conditions; prices of fuel and other commodities having an industrial significance.

In conducting these surveys it will be found possible in a number of cases to obtain the desired information from governmental and other reliable sources. However, most of the data will have to be procured either through personal solicitation or by means of questionnaires. As the latter is a less expensive medium, it should be used whenever it is capable of producing the desired result. Great care should be exercised in its use, however, for success depends entirely upon the manner in which the inquiries are composed and presented. The best of feeling and confidence must exist between the Bureau and the people from whom it is seeking information, for most of the data will be of a very confidential nature. Following is an example of a typical questionnaire having for its purpose a survey of industries.

LOS ANGELES INDUSTRIAL BUREAU.

NO. _____

DATE. _____

TO THE BUSINESS MEN OF LOS ANGELES AND VICINITY.

Gentlemen:-

An Industrial Survey of this section is being made under the direction of the Los Angeles Industrial Bureau, which will embrace all enterprises in operation;

the object being to compile such accurate information as will enable us to form a basis for the promotion of industrial development in this locality.

Will you assist us in gathering this information by answering the "Inquiries" following, and return to the Industrial Bureau, Los Angeles, as promptly as possible?

You may rest assured that the information furnished by you will be used in the STRICTEST CONFIDENCE, and only in COMPILING, IN THE AGGREGATE, a Descriptive Inventory of the industries operating in this territory.

LOS ANGELES INDUSTRIAL BUREAU.

NOTE:- (1) Inquiries that are followed by a question mark (?) should be answered "yes" or "no"; or if this is not applicable, please write word "none". EVERY QUESTION SHOULD BE ANSWERED.

I BUSINESS AND ADMINISTRATIVE

1. Name of establishment _____
2. Character of organization _____
(individual, partnership or corporation)
3. P.O. address of general office _____
4. Date business was established _____
5. Kind of business _____
6. Approximate value of physical plant \$ _____
(plant, buildings, machinery, tools, equipment, supplies)
7. Yearly amount of total sales billed \$ _____
8. Yearly cost of raw material \$ _____

II PLANT

1. Location of plant _____
2. Number of buildings _____
3. Are buildings owned or rented _____
4. If rented when does lease expire _____
5. Plant surroundings
(isolated position, congested district,
etc.) _____
6. Total ground area _____
7. Ground area unoccupied available for expansion _____
8. Building construction _____
(concrete, brick, wood, etc.)
9. Number of stories _____
10. Insurance rate _____
11. Floor space _____
12. Can stories be added? _____ How many _____
13. Was plant designed by yourselves or is it an old plant
made over _____
14. Are you considering rebuilding of plant? _____
15. Do you develop your own power? _____ How much yearly _____
HP.
16. Do you purchase power? _____ How much yearly _____
HP.

III MANUFACTURING AND PRODUCTION

1. What do you produce (if available, please enclose cata-
logue) _____

2. What quantity of your product is sold per year _____

3. What raw materials do you use and quantities _____

4. What markets do you buy them in _____

5. Have you any by-product and wastes, and if so, how are they disposed of _____

6. What freight rates do you pay on your raw material and is it transported by water or rail _____

IV DISTRIBUTION

1. Where are your principle markets _____

2. What percentage of your product is sold in,

(a) Los Angeles County _____

(b) California (south of San Francisco) _____

(c) Arizona _____

(d) New Mexico _____

3. What freight rates do you pay on the finished product _____

4. How are products marketed? (a) Direct? _____ (b) Jobbers?
 _____ (c) Wholesale? _____ (d) Retail? _____
5. Are branch offices or depots maintained for distributing
 purposes? _____ If so, where _____

6. Have you Branch Assembly plants? _____ If so, where _____

V LABOR

1. (a) Males employed _____ (b) Females employed _____
2. (a) Skilled labor _____ (b) Unskilled _____
3. Is labor easy to obtain? _____ If factory were enlarged? _____
4. Union shop? _____
5. General labor conditions _____

6. Any labor trouble within the past 3 years? _____ Causes
 and how settled _____

7. What is the present per hour rate paid labor on the dif-
 ferent processes in your production:

VI GENERAL REMARKS

Each community is situated in an entirely different position with relation to industrial activity; hence local factors should be given considerable attention in composing questionnaires. A questionnaire which would serve admirably in one city may not begin to answer the purpose in a different locality.

It will be noted that the surveys described in the preceding pages are interrelated in their scope, and probably could be carried on simultaneously, with economy in both time and money. One questionnaire may be composed to serve the purpose of practically all the surveys. The name commonly given to an investigation of this character and magnitude is that of an Industrial Survey.

All of the effort expended in the gathering and

compiling of data should be productive of the following results:

FIRST: It should furnish an accurate descriptive inventory of the industrial advantages and disadvantages of the locality.

SECOND: It should enable the Industrial Bureau to conduct its work more intelligently and efficiently to get the facts needed to place proper information before prospective manufacturers and to serve as a basis for (a) remedying defects which are handicapping the city industrially, and (b) conducting a general campaign for new industries.

THIRD: It should give information as to the percentage of manufactured goods consumed locally, furnishing a basis for developing plans for increasing the local demand for local products.

FOURTH: It should indicate to bankers which industries already located in the district are capable of extraordinary expansion, if adequate financial assistance is given.

FIFTH: It should reveal the types of industry not already represented here, but which should naturally thrive in this locality.

SIXTH: It should furnish comprehensive knowledge as to labor conditions in the locality.

SEVENTH: It should enable the people to grasp

comprehensively the industrial status of their community and encourage every citizen to disseminate information upon the widespread industrial activities of his city, thus developing a greater civic patriotism.

II THE LOCATION OF NEW INDUSTRIES

The next important step in the work of the Bureau, after the completion of the Industrial Survey, is to rectify conditions adverse to industrial development and to capitalize those that are favorable; this means the acquisition of new industries. The results of the Survey will indicate the industries which are most needed by the community and to which the locality is best suited economically. It is far better to decide on some one line at which to fire the Bureau's broadside than to scatter-gun over the entire industrial field.

A comprehensive brief should be constructed, taking up point by point the advantages of the locality for the particular industry in view. This work should show in dollars and cents as nearly as possible the actual operating and marketing costs. Each element treated in Chapter Two, which deals with the factors influencing the location of an industry, should be taken up in detail and always from a financial standpoint. The point of view taken throughout the entire investigation should be that of the industry. In short this brief should take the form of a report made

by an engineer who has been hired by a prospective industry to investigate its problem of location.

The next step may be said to consist in interesting people in the proposition. Dragnet publicity methods and formletter propoganda have not proved successful in adding new factories. "Selling Los Angeles" to a prospective new industry should be based on methods as practical, thorough, and persistent as those used in the marketing of any other nationally sold commodity.

Prospects can be discovered through direct inquiries by principals, information furnished by members, or information sent by observers, established for this purpose, in large industrial centers. When the information presents unusual promise, a capable representative from the Bureau should make a personal call. Every opportunity, however remote or uncertain, should be conscientiously followed to a definite conclusion, and during the negotiations every opportunity should be utilized to advertise the industrial advantages of the locality.

When the Survey discloses, and the Brief proves that an unusually favorable opening exists for an industry that is not represented in the district, the attention of all the leading establishments in that field in all parts of the country should be directed to the opportunity. Too much stress can not be placed upon the need of the personal element entering into all the negotiations. The represent-

ative of the Bureau should be thoroughly conversant with industrial problems, especially with the problems and needs of the industry with which he is dealing at the time.

If the community actually possesses industrial advantages, it will be found that this sound, businesslike program will effect the desired results in the majority of cases without artificial help. However, sometimes because of the immobility of established factories and lack of capital on the part of prospective industries, it will be found necessary to devise and put into practice some plan by which financial and other help may be accorded. Following are some of the plans in use by many cities at the present time:

The Development Company Plan

This plan requires the formation of a holding company by the citizens of a community. It is a corporation organized for the profit and benefit of its stockholders and to further the industrial development of the city. Its members are as a rule the big business men of the community. The capital should be of an amount sufficiently large to permit of extensive operations. It is well to have the Director of the Industrial Bureau act in the capacity of secretary in the Development Company.

A prospective industry requiring help applies to the Development Company. The directors with the aid of the Industrial Bureau thoroughly investigate both the economic and financial features pertinent to the proposition. If

the report is favorable, the Development Company will invest a certain predetermined percent of the total investment in the bonds or perhaps the preferred stock of the new enterprise. The Development Company will be duly represented in the board of directors, and will have a large influence in the management of the new concern; the stockholders of the Development Company will be well protected. This is a sound and by far the best plan yet devised. It is in successful operation in Scranton, Penna., Lafayette, Ind., Baltimore, Md., Davenport, Ia., and many other cities.

The Guarantee Fund Plan

Under this plan an organization is formed of a number of public spirited citizens who agree to endorse or guarantee the loans made by banks to new industries which have been investigated and found deserving. The management of this credit fund is placed in the hands of a small committee who are named the trustees. No money is collected, but each member subscribes to any amount which he would be willing to guarantee. The banks notify the trustees when payments are due. If they are defaulted, the loss is prorated among the subscribers according to the amounts which they have promised to guarantee. Many small loans will work better under this plan than a few large ones. One of the disadvantages of this plan when compared to the Development Company is that the organization has very little direct influence in the management of the new concerns. It will

also be found harder to organize than the Development Company because of the eleemosynary character of its investment.

The Town Lot Plan

The usual procedure is to organize a company of local men with sufficient capital to purchase a piece of acreage property situated either in, or in the vicinity of the city. The land is then subdivided into town lots and improved with streets, etc. A part of it is reserved as a site for the proposed industrial establishment. This industry is then offered the site free of charge or at a nominal cost; the lots are then sold to the new working population brought there by the new enterprise, at an advance in price equal to the cost of improvement and interest charges, and to cover loss on the site taken by the factory. This plan presents an excellent opportunity for cities to secure model factory additions.

This plan may be launched upon a much larger scale by providing for sufficient land for an entire industrial district instead of just enough for one enterprise. German cities have, with public funds and under public control, developed their entire industrial districts by similar plans. Frankfort-on-the-Main is an excellent illustration of a city developed by use of this method. (A description of its plan will be given in Appendix I.) This plan is sometimes operated to net a handsome profit to the promoters of

the enterprise. This scheme of industrial development is to be found in use in a number of cities at the present time. It has its largest application in small communities.

The Incubator Plan

The plan under this caption is as follows:

An organization is incorporated having for its purpose the construction of a building or group of buildings with terminal facilities, and all modern factory conveniences and necessities. Space in these buildings is rented to a manufacturing concern too small to own its own plants. The rental is usually made to cover all utilities, such as power, light, heat, elevator service, water and shipping facilities. An undertaking of this character has been found very profitable to investors in the past. Few large cities are without a building of this sort. They make possible the existence of business enterprises which otherwise would find the cost of production prohibitive. Some of these incubators, as they are called, are very large and house hundreds of industries. Sometimes each floor of the building will have a number of varied industries, each manufacturing articles entirely different from its next door neighbor. The Bush Terminals in New York City and the Toledo Factories Building furnish splendid examples of the possibilities of locating industries under this plan. Buildings of this character are absolutely essential to the industrial development of a city.

The Investment Department

This is an innovation in Industrial Bureau work for which credit must be given Omaha. The aim of this department is to carry a list of the names of possible investors together with all the information which may lead to obtaining investment funds for industrial purposes in the district. Its purpose is, by systematic methods, to interest local capital in prospective industrial enterprises; it acts as a promoter, with the best interests of the investor at heart. This department should be made a feature of all Bureaus.

The plans described in the last few pages, as will be noticed, are of very general character; local factors will greatly influence the choice of plan. Perhaps no one plan will meet all the needs of the district. Usually the one adopted will be a combination of all the plans. The Development Company plan, however, is the one most universally used, and promises to outlive all the others. All of the plans require the most careful investigation of the prospective concern. Bonus and free-site seekers must be guarded against. (A description of plans in use by a number of cities will be found in Appendix I.)

III CO-OPERATION WITH EXISTING INDUSTRIES

This phase of the Bureau's work is as important as that of locating new industries; sound industrial develop-

ment demands not only the location of all the factories possible, but also that these factories shall develop and grow on a healthy basis. The importance of this function has not been recognized by Industrial Bureaus until very recently, so that the work in this field is still in an early stage of development. However, a fairly definite program may be constructed for a Bureau to follow in conducting this work.

The first and most important part of the work in this field will consist in the creation of new markets and possibilities for locally manufactured products. In our discussion of markets in a previous chapter it was found convenient to divide the subject into two sub-divisions, foreign and local. So in dealing with this problem it will not only be advisable but it will be found necessary to adhere to this classification. In either case, effort should be expended along the following two lines: investigation and publicity.

The demands of both the foreign and local markets should be studied with great care, and the quality and quantity of production should be based upon the findings. A study of this character will sometimes reveal the need for a small change in the product which will increase its salability manifold; it will show the possibility for products which are not, but could be manufactured by existing local concerns; it will help local factories to determine a sound manufacturing policy for them to follow.

Publicity in this field may be accomplished in a great number of ways. Following are a few of the forms:

(a) Permanent Exhibitions

Some organizations make the practice of conducting a permanent exhibit of locally manufactured products, either in the Chamber of Commerce building or in some conspicuous place in the center of the city. Such a display is of value in calling to the attention of visitors the industrial activity of a city. However, the value of this kind of exhibit as a local trade-getter is in most cases overestimated.

(b) Rotary Permanent Exhibits

This is a variation of the straight permanent exhibit in that the display confines itself to one industry at a time, a number of days being allotted to each industry in the locality. This kind of exhibit will be found very effectual in arousing local interest in local products. Its use is recommended whenever possible.

(c) Home Products Week

A week is set aside in which as much window space as possible is secured in the business section of the city and devoted to the display of locally made products. An intense campaign of this sort will always be found productive of good results. Every community should attempt an exhibit of this kind.

(d) Newspapers and Periodicals

An effort should be made by the Bureau to write

up some local industries in the newspapers periodically. This will be found inexpensive and will arouse a local interest for the good of the industry. It will be found advantageous sometimes to cause these articles to appear in nation-wide publication.

(e) High School Clubs

These clubs should be formed with the object of interesting the young people in local industries and their products. Excursions may be conducted under the auspices of the Bureau, to further this work. These clubs may also be made the basis for a great deal of vocational guidance work.

(f) Woman's "Home Products" Club

These clubs are formed for the purpose of conducting excursions through industries whose products are of interest to women. The advantages of buying a home product whenever possible should be brought home to the members. A large amount of business will be stimulated by the activities of these organizations.

The Bureau will also be called upon to help established industries financially when large expansions are undertaken. This may be accomplished either through cooperation with the banks or through the Development Company. It is best that in these transactions the Bureau serve merely in an advisory capacity.

Another important function of the Bureau in this field is to co-operate with local educational institutions in the solution of industrial problems which will come up from time to time in local factories. The problems may be those of administration, of efficiency, of the profitable disposal of wastes, etc. Such co-operation would be of advantage to everybody concerned.

The Bureau should also organize clubs such as The Manufacturer Executives Club, The Salesman Club, The Shipping Clerks Club, etc. These clubs may be conducted as classes in which the problems relative to their positions would be discussed. The results of this effort may not be felt immediately but will finally appear in the increased efficiency of the entire industrial district.

In general, all the effort possible should be made by the Bureau to promote the welfare and prosperity of the existing industries.

IV GENERAL CIVIC FUNCTION

The Bureau should take an active part in any civic propoganda which would affect the industrial development of the city. It should consider itself the representative of the industrial interests of the district, and in that capacity it should leave no stone unturned in its effort to protect those interests.

Chapter 5

Organization and Policy of the Industrial Bureau

Organization is, without a doubt, one of the most potent factors in the success of any undertaking. This applies equally well in fostering the industrial development of a community. The work must be thoroughly organized. It will be the purpose of the following pages to discuss a few of the general principles upon which Industrial Bureau organization is based.

FUNDAMENTAL CONSIDERATIONS

Shall the Industrial Bureau be made a part of the municipal government, or shall it be made the activity of a private organization?

This will probably be the first question arising in planning the establishment of a Bureau. The writer firmly believes that private organization is by far the most efficient mode of conducting this work. To function properly the Bureau not only demands the attention of men trained in industrial development work, but also the equally important factor of an enthusiastic membership, which is willing and able to stand back of the Bureau in its work, and which is composed of individuals having commercial and industrial interests in the community. This factor would be entirely lacking under the public form of organization. The voters would visit the polls periodically, register their desires,

and forget all about industrial needs until it was time to vote again. Not only would the lack of this support be felt in the Bureau's work but the non-existence of the public interest would make it possible for inefficient men to be placed in charge of this important work. The Industrial Bureau must be kept out of politics. Fortunately very few cities have adopted the Bureau as a public function. Niagara Falls, N.Y., and Peoria, Ill., are the only two cities which have come to the writer's notice as having municipally controlled Bureaus.

The Industrial Bureau should be organized as a private enterprise for the following reasons:

FIRST: Because it will assure the employment of the right men to handle the work.

SECOND: Because the Bureau will at all times have the backing of men interested in the community from the industrial and commercial standpoint.

THIRD: Because it will free the Bureau from political influence.

Shall the Industrial Bureau be made a part of the Chamber of Commerce, or shall it be made an entirely separate organization?

In practically every community the organization of an association to promote commercial and industrial activity has been found productive of good results. These commercial bodies are known by different names in different

communities. Some are called Chambers of Commerce, some Boards of Trade, some Associations of Commerce, etc. In practically all cases, however, their function is the same i. e., to co-ordinate the forces for fostering commercial development in the locality. For the purpose of this discussion an organization of this character will be termed a Chamber of Commerce.

The commercial and industrial interests of a community are so closely allied that the writer does not believe it advisable to entirely separate the organizations which function to improve these interests. If a city develops industrially, it develops commercially. The converse is also true. The best form of organization is the one which combines these interests yet divides the work so that it can function best in each direction. A Chamber of Commerce functioning through a number of Bureaus has been found the best type of organization for this work.

GENERAL ORGANIZATION

It is recommended, in order that it may perform the varied business functions within its scope more efficiently, that a Chamber of Commerce be organized under the general corporation law of the state. The accompanying diagram shows the plan and structure of the Chamber organization. The basic structure of the Chamber is represented on the diagram by the series of rectangles at the top.

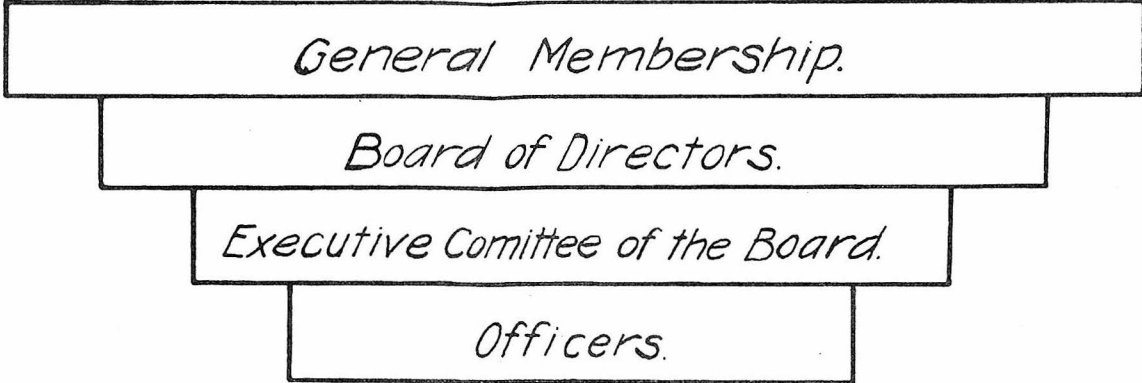
The top rectangle represents the members of the

Chamber, who elect the Board of Directors, which Board is represented by the next rectangle. To the Board of Directors, the members of the Chamber commit all power, authority, and responsibility for the conduct of the business of the organization. The Board should hold regular meetings monthly, and special meetings as occasion may require.

The next smaller rectangle represents the Executive committee of the Board of Directors, which during the interim between the meetings of the Board has the power and authority of the Board itself. The Executive Committee should be very careful about exercising such power, unless the general policy has already been determined by the Directors. This committee should meet regularly each week, special meetings may be held as the work of the organization requires. This Executive Committee constitutes the point at which all the various lines of the Chamber's activities should be co-ordinated and harmonized.

The smallest and bottom rectangle represents the officers of the Chamber, who should be elected annually by the Board of Directors. This is the center of all power, authority, and responsibility in the organization.

Action on the part of the Board of Directors or Executive Committee is, however, predicated upon a careful analysis of subjects. For this purpose the investigative and recommendative machinery, as indicated on the righthand side of the diagram, is constituted.



BASIC STRUCTURE

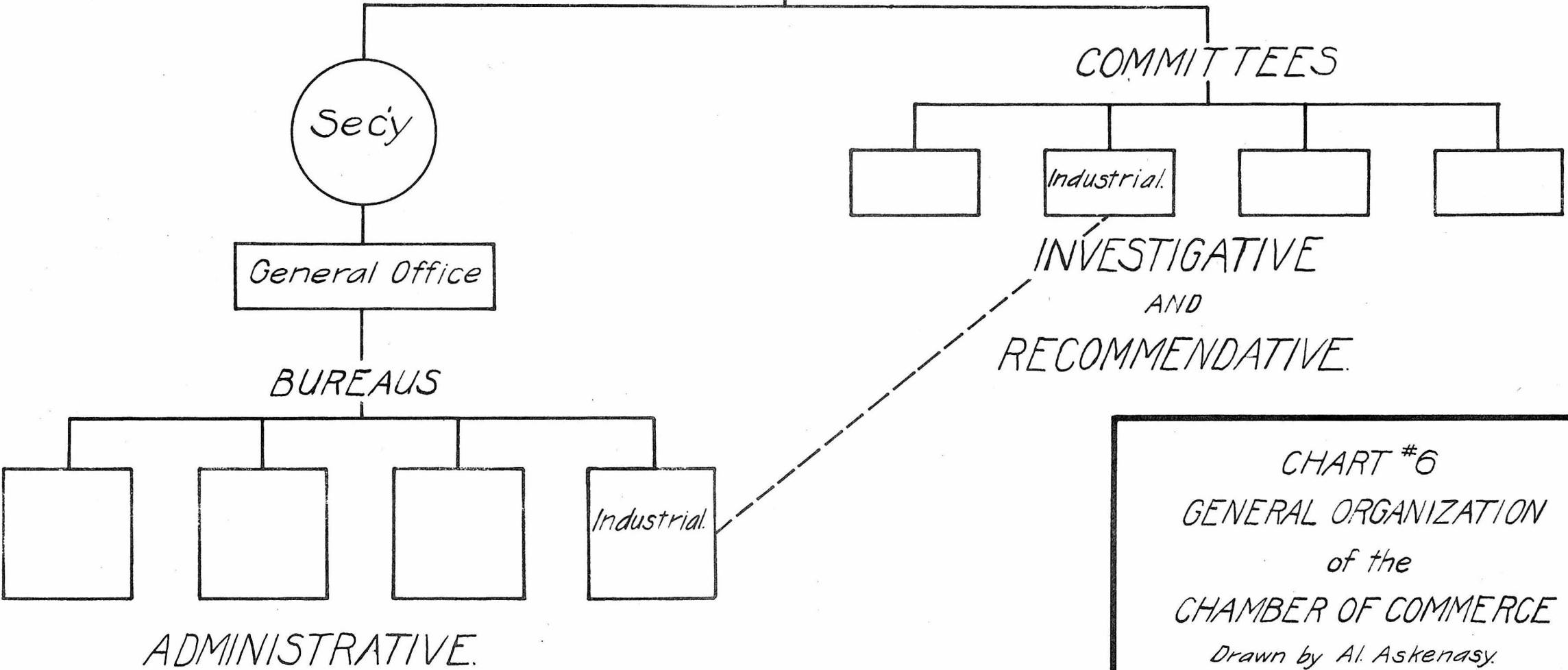


CHART #6
GENERAL ORGANIZATION
of the
CHAMBER OF COMMERCE
Drawn by Al. Askenasy.

The individual rectangles represent the various standing committees of the Chamber, which may be enlarged or reduced at any time by authority from the Board of Directors. The members of these various investigative committees are appointed by the President. The function of each committee is to investigate, analyze, and report with recommendations to the Executive Committee, and through that committee to the Board of Directors, by whom the final decision as to the policy of the Chamber is made. Subjects for investigation by the appropriate committee and action by the Chamber may be suggested by the committee itself, by any officer, by the Executive Committee, by the Board of Directors, or by any member of the Chamber.

After the determination as to the question of policy and of the result which should be attained has been made by the Board of Directors, then the administrative responsibility passes through the Secretary to the official staff of the organization, which is represented by the administrative group on the left-hand side of the diagram.

Each one of the various branches of the Chamber staff is under the general supervision and direction of the Secretary, who constitutes in the administrative work of the Chamber the co-ordinating and harmonizing agency similar to the function performed by the Executive Committee in the basic structure of the organization.

It will be seen that the structure of the entire

organization is representative in character, and follows very closely the organization of a business corporation. The form is one which insures promptness, elasticity, and efficiency, which are three vital factors in the successful prosecution of co-operative effort for the city.

Following is an outline of the provisions which the By-Laws of an organization of this character should contain:

- (1) Name and Object
- (2) Membership
- (3) Management and Officers
- (4) Duties of Officers
- (5) Meetings and Powers of Directors
- (6) Standing Committees
- (7) Order of Business, Director's meetings
- (8) Meetings of Chamber
- (9) Order of Business at Meetings of Chamber
- (10) Expulsion
- (11) Signing the Roll
- (12) Amendments

ORGANIZATION OF THE BUREAU

The responsibility for the work of the Industrial Bureau should be placed in the hands of one man, called the Director. In the diagram his position is indicated by the circle at the top. He should be a man trained commercially and should have a general technical knowledge of the various

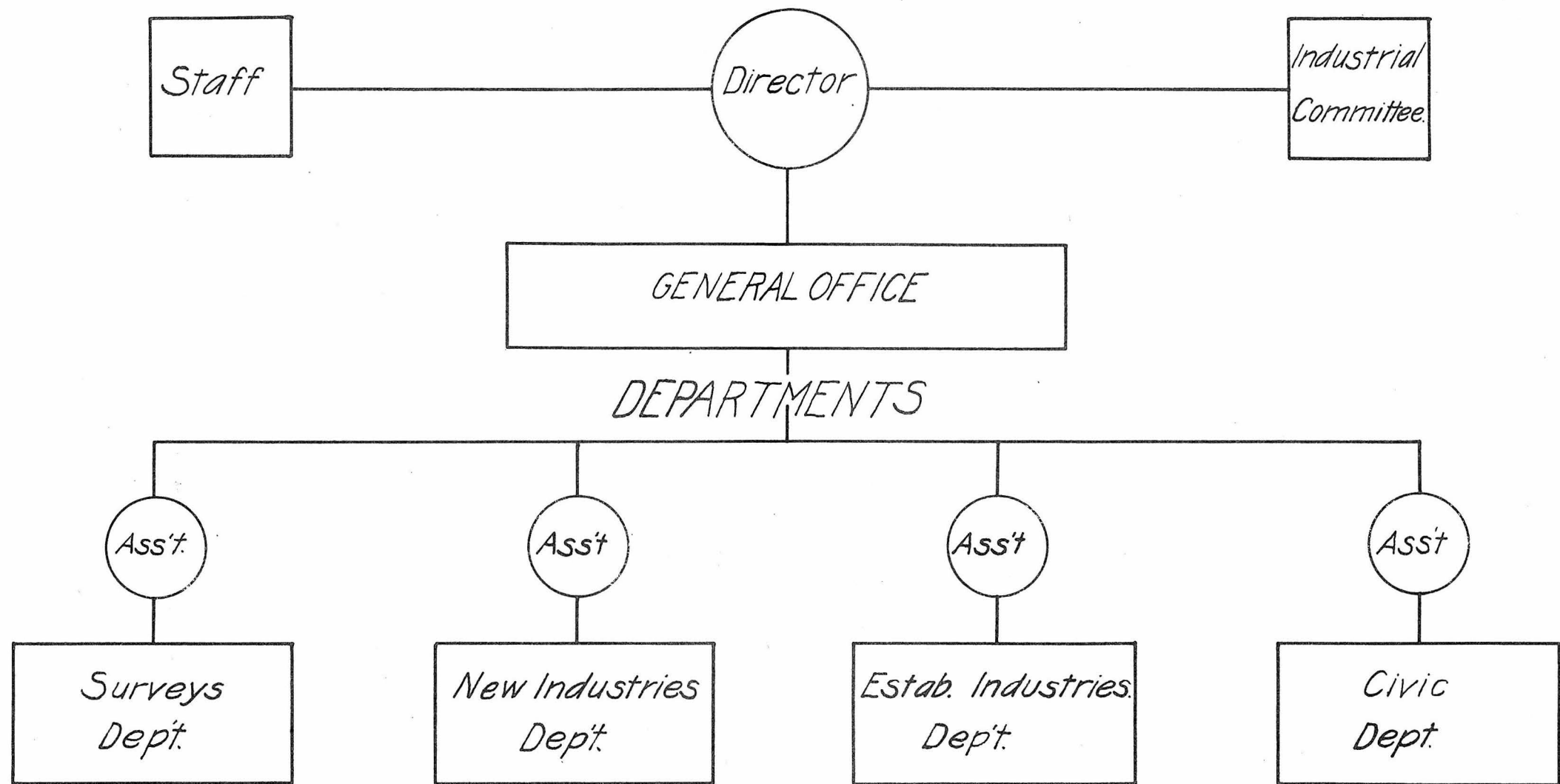


CHART #7
INTERNAL ORGANIZATION
OF THE
INDUSTRIAL BUREAU
Drawn by Al. Askemasy.

industries. The success or failure of the Bureau will depend in a large measure upon the accomplishments, forcefulness, and personality of its Director.

He will be helped in his work by the two investigative and recommendative bodies indicated in the diagram by the two rectangles to the right and left of his position. He should meet with the standing Industrial Committee of the Chamber periodically to discuss and plan the general work of the Bureau. His staff will consist of his assistants, each of whom will have charge of a department, and any number of experts he may see fit to call in in an advisory capacity.

As has been stated previously in the text, the work of the Bureau may be advantageously divided into the four following branches:

- (a) Making of Surveys
- (b) Establishing New Industries
- (c) Helping Established Industries
- (d) Civic Industrial Activity

If the volume of business justifies such a course, a department may be created for each one of these functions and placed in charge of a trained and competent assistant. In small communities it will be found advisable to have the Director handle all the work himself. However, even though the work is accomplished by one man the records and other material of the different branches should be kept separated.

GENERAL POLICY

The success of a Bureau depends upon the following

three factors:

FIRST: The work must be based upon a sound business policy.

The practice of offering inducements such as free sites, cash bonuses, exemption from taxes, etc., is fundamentally wrong, and, in the majority of cases, is productive of disastrous results. An industry which requires inducements of this character for its existence will not, as a rule, be found an asset to the community.

SECOND: The work must be conducted in a scientific manner.

Industrial development is a science; it is the science of "selling" the industrial advantages of a community. Thoroughness and integrity, the fundamentals of all scientific work, should govern the conduct of the Bureau.

THIRD: The work must be placed in competent hands.

It is absolutely essential to the success of a Bureau that its management be placed in the hands of men having wide business experience, and men who have been technically trained. Scientific work must be placed in scientific hands.

And finally, the Bureau should never lose sight of its ultimate aim, the WELFARE OF THE COMMUNITY.

APPENDIXES

A P P E N D I X I

PARTIAL LIST OF FINANCIAL AND BUILDING PLANS ADOPTED BY
COMMERCIAL ORGANIZATIONS TO FORWARD INDUSTRIAL DEVELOPMENT
COMPILED FROM COMMERCIAL ORGANIZATION REPORTS AND LETTERS
IN ANSWER TO INQUIRIES.

In the following extracts from the experience of various cities in the United States will be found a wide variety of expedients to assist the establishment of new industrial enterprises. It is hoped that profiting by their combined experience, dangers may be avoided and successful plans made available for other cities which are conducting Industrial Bureaus.

WILLIAMSPORT, PA.

The Williamsport plan, adopted in 1900 and abandoned in 1915, was essentially a subscription of credit by responsible local business men. Williamsport was a pioneer in the guarantee fund movement and its plan has been widely copied. Under this plan the local banks agreed to furnish money to the extent of the total subscriptions on the indorsement of three attorneys-in-fact, elected by and representing the subscribers to the fund. Contracts ran for a period of five years. Copies of the contract and certificates of the action of subscribers in electing the attorneys-in-fact were filed with the banks, and the attorneys-in-fact were authorized to indorse for the whole or any part of the

fund. Before such indorsement was made, applications by borrowing firms for aid were required to be approved by the commercial organization. If at maturity the applicant failed to meet the obligation, the subscribers to the fund had to pay the amount due by them, each subscriber being liable for a prorata share only of the indebtedness. If by reason of the death or failure of a subscriber the total amount of the fund was reduced, the company had power to secure new subscribers to keep it intact. Under this plan there was no advance of money, but a guarantee of credit merely, and usually no security was taken from an applicant for financial aid.

The Williamsport Board of Trade, in a letter commenting upon the abandonment of the plan, states that inasmuch as credit was only extended to industries that could not get a loan from a bank, the result was that the credit of any concern so helped was materially injured and it was doubly difficult for it to secure accommodations from local banks without the same sort of security that accompanied the original loan.

In conclusion the letter says:-

"I am not prepared to say what would have been the success of this plan if it had been operated on a more liberal scale, but I do believe it is doubtful if any plan of this sort, or any modification of it, will secure for a city industries which are really worth while that could

not be secured through established and liberal banking circles, together with the aid of public spirited citizens able to become investors in a worthy industry."

DAVENPORT, IA.

The Davenport Industrial Development Company, inaugurated in July, 1911, has a capital stock of \$300,000, that is 3000 shares at \$100 a share. A business man subscribes to, say \$1000 worth of stock, and pays in \$100, or 10%. He owes the company \$900. Together with the other subscribers the company has in cash \$30,000 and owed to it \$270,000. The \$30,000 is put in the bank and draws interest. The subscriptions for the remaining \$270,000 are used to establish a line of credit with the local banks. The holding company goes to the bank, and draws a predetermined amount, giving its note. With this money the holding company buys securities in industries anxious to move into Davenport. These securities are deposited with the bank as additional collateral. The holding company buys the stock outright and can do with it what it pleases.

SCRANTON, PA.

The Scranton Industrial Development Company was organized in May, 1914, with \$1,000,000 capital stock into 100,000 shares of the par value of \$10 each, no subscription to be taken for less than five shares. No more than twenty per cent of subscriptions can be called in any one year.

Investments are to be made only in the securities of manufacturing plants in or hereafter to be located in Scranton. Stockholders elect Board of Directors with complete control, but they are to consider no investment except those investigated and approved by the Manufacturers' Committee and the Board of Directors of the Scranton Board of Trade. No call is made on stockholders until the immediate occasion arises, and upon a majority vote of the Board of Directors of the Board of Trade and the Development Company; and every call shall be on a printed form signed by the President and Secretary of the Board of Trade and the President of the Development Company, and shall clearly set forth the purpose for which the call is made. No more than 20 per cent of the capital subscribed shall be used in any one concern.

Following is an excerpt from the annual report of the Scranton Board of Trade for 1916 which refers to the Development Company:

"All of the concerns which have been assisted financially by the Development Company since its existence are successful, going concerns, contributing to the prosperity of Scranton, with the exception of the Scranton Axle and Spring Company. The amount of actual cash invested in all of these concerns totals \$808,342 of which sum but \$16,000 has actually been lost, and more than \$200,000 has already been repaid. Every one of these concerns owe their existence in Scranton today to the practical efforts of the

Development Company, and the payroll they are putting out in this city every year is not less than \$1,200,000, and will probably in the coming year pass \$1,400,000. The percentage of loss to total investment is exceptionally low, and with the results attained constitutes a record which I do not believe has been surpassed by any financial plan to help locate new industries in the United States. When it is remembered that the industrial funds placed by the Development Company must bring not less than 6 per cent, the achievement becomes all the more creditable."

LAFAYETTE, IND.

Following are extracts from a letter received from the Chamber of Lafayette, Ind.:-

"We feel that we have placed the work of securing industries for this city on a very substantial and permanent basis. We started with the belief that the Scranton and Williamsport and Davenport plans were not sufficiently effective or business-like to meet our needs, and that our efforts should be directed to a considerable extent toward the providing of advantages by which manufacturers could be induced to locate here on the basis of our merits as a manufacturing location, and that the raising of a fund for financing enterprises should be made a secondary matter.

"We realized, however, that a great many manufacturers who might locate here on the basis of our merits, would also include in their moving plans some kind of re-

organization which would mean additional finances, and therefore we raised the fund.

"With these ideas in view we have a factory terminal project under way which is expected to finance itself through the sub-division plan.

"We also organized the Lafayette Development Company, a separate corporation subsidiary to this organization. This company has a capital stock of \$200,000 of which two-thirds has been subscribed for and the rest is being subscribed for without any particular effort at solicitation. The payments extend over a five year period."

"The Development Company virtually does a banking and brokerage business. Its purpose is to operate for profit and at the same time secure tenants for our factory terminal and other factory buildings.

"The idea in making a profit is that in a great many instances concerns whose preferred stock or bonds we purchase and locate here will be willing to give us either a small brokerage fee or some proportion of their common stock. We, of course, would expect to sell the preferred stock or bonds to the public as quickly as possible so that we could again have this money available to invest in other new factories. The Development Company would retain the brokerage fee or the common stock, and this would go to the stockholders of the Development Company in the shape of dividends.

"Our idea of securing factories is that we will not wait for concerns to write to us, but we will conduct a number of investigations to secure the kind of plants which we believe can be operated successfully here."

EASTON, PA.

Following is from the Easton Board of Trade concerning its guarantee fund of \$600,000:-

"Our banks first pass upon a list of names, consisting of our investors, professional and business people, as to the amount they are willing to accept in indorsements, which amount is reduced to a minimum. Every man, firm or corporation on our list, in the judgment of our banks, is good for a few to many times the amount of the Guarantee or indorsement, but in order to make it possible, acceptable and safe, a conservative minimum allotment of credit was fixed by the Guarantee Fund Committee. The large corporations, including the public utilities, breweries, etc., were allotted \$20,000 as the maximum; other smaller corporations and large business houses were allotted \$10,000, a still greater number \$5,000; a few \$3,000; a large number \$2,500 and one hundred fifty (150) \$1,000 each. No subscriptions less than \$1,000 were taken.

"Under this guarantee plan we get industries only after full investigation as to their desirability, purchase sites, put up their buildings and take a first mortgage for 100% of the actual amount involved and on which they are re-

quired to issue bonds. We then take negotiable notes from the various industries so assisted which notes are made by the parties at interest, and further secured by collateral, consisting of the mortgage bonds so issued. In addition these notes are indorsed by the Attorneys-in-Fact of the subscribers to the guarantee Fund who are empowered to act by a regular power of Attorney given by each subscriber to the guarantee Fund, and all contained in a substantially bound book. The notes are usually four month notes and discounted by our banks at 5.4% per annum, and promptly renewed by the makers, who pay the discount each time, for such length of time in years as may originally be agreed upon by the new concern and our Executive Council, (who are also individual subscribers themselves) and our Banks. At the end of the first or second year we ask the borrowing concern to start repayment of principal in such sums as may be no hardship to the locating parties, so that our fund may be available for other new concerns desiring to locate here and take advantage of our fund and its system."

MINNEAPOLIS, MINN.

Plans for an industrial tract have been advanced to a successful conclusion by the Committee on Industrial Development of the Civic and Commerce Association. These plans involve the acquisition for industrial purposes of a 265-acre tract of land in Northeast Minneapolis by the Minneapolis Industries Association, a company which is now

a permanent and dominating influence in the growth of the city. It was for the furtherance of this purpose that the organization of the Minneapolis Industries Association was brought about, a corporation with a capital stock of \$300,000, whose purpose is to acquire and develop what is known as the "New Industrial Tract." The Association will carry on an extensive and aggressive campaign to interest manufacturers in this tract and will put a price upon the land which can not fail to be attractive to them.

Former President Fiske of the Civic and Commerce Association, in an address commenting on the successful organization of the Minneapolis Industries Association, said:-

"The Company aims to provide Minneapolis manufacturers both present and prospective, at reasonable cost, with the very best sites, having the most advantageous facilities for securing and handling their raw materials and finished products, in a locality easily accessible to the best labor district. Thus, will Minneapolis manufacturers be enabled for many years to come, to develop their plants under the most favorable conditions."

TOLEDO, OHIO

Following is an extract from a letter from the Toledo Commerce Club:

"Several years ago a few men with particularly broad vision had the conception that a great step might be made by constructing a building wherein small manufac-

turers might be given a chance to launch their enterprise without first having to erect a building. This idea which has since become successfully crystallized, has taken shape in the Toledo Factories Building. Since the time of its establishment it has become a factor in the community and has not only been profitable from the standpoint as an investment but has amply repaid those interested as being a veritable Incubator of Infant Industries."

"The building has been filled to capacity during the entire length of its existence. It has been the means of developing many small industries into larger ones which have been forced to move into other quarters and have constructed buildings which they are now occupying. The directors of the Toledo Factories Building feel that the time is now come to seriously consider the erection of two more wings as the business of the present tenants is growing very rapidly."

"The rentals are moderate, and include all the charges except for power and supplies, and a low rate is charged the tenant for these. Electricity, steam, gas, water and compressed air are furnished through individual lines."

HARTFORD, CONN.

Following is an excerpt from a letter from the Hartford Chamber of Commerce:

"Our general plan is to erect a building for a solvent and going concern, providing the Company will procure

a site and take a portion of the amount necessary to erect a building, including therein the value of the site and the amount of stock taken, usually about 20% of the whole. This building is usually erected through the formation of a stock company known as the Chamber of Commerce Building Association, and the members of our organization are asked to subscribe to the stock. In two instances this plan has been followed with excellent results. The Chamber of Commerce has also as an organization taken stock in the project. The usual condition is that the Company may have the privilege of buying in not less than three years nor more than ten years and shall pay an annual rental that will net shareholders 7%."

CLEVELAND, OHIO

The plan of a Development Company proposed by the Chamber of Commerce of Cleveland in its annual report for 1916 is by far the most comprehensive one yet evolved. A synopsis follows:

It is proposed to incorporate a company for profit under the laws of Ohio to be known as The Cleveland Industrial Development Company with a capitalization of five hundred thousand dollars (\$500,000) of common stock divided into five thousand (5,000) shares of one hundred dollars (\$100) each. The plan proposes a promoting company with a sufficient paid-up stock to permit of operation, to investigate and report upon industrial investments for the benefit of its stockholders. The company would be independent of The

Cleveland Chamber of Commerce, but would work in harmony with the chamber at all times.

Articles of Incorporation

In order that the company may enjoy full benefits from the result of its investigations, the articles of incorporation will be of sufficient scope to permit of the widest range of investment and development.

Management

The government of the company will be vested in a board of directors. A general secretary, a director of underwriting, and other executive officers will be employed. Other employees will be secured as required.

Membership

It was suggested that the board of directors of the company select a list of from two hundred to four hundred men, whom they believe to be qualified, as charter members of the company, additional members to be added upon approval by the board of directors.

Qualifications of Members

One of the fundamental essentials to the success of the plan is that the unit of efficiency should be kept in mind in selecting the members. The following requirements should be insisted upon:

1st. Members should be financially able to assist in the underwriting of enterprises indorsed for promotion.

2nd. Members should be prominently identified with industrial or other enterprises in the city of Cleveland.

3rd. Members should understand and be in full sympathy with the plans and purposes of the company.

4th. Members should be willing to contribute time and judgment to the investigation of projects which the board of directors approve as worthy.

5th. Members should have experience in some field of activity that will enable them to assist in determining the advisability of promoting any enterprise under investigation.

Stock Subscriptions

The plan contemplates that each member subscribe to not less than ten (10) and not more than twenty (20) shares of stock; payments to be called for, as required by the board of directors. No stock in the parent company is to be transferred without the consent of the board of directors.

Stock in Promoted Companies

It is proposed that no stock in any enterprises promoted by the company be sold except to members until each member shall have first had an opportunity to purchase said stock.

Investigations

The board of directors shall first decide whether a project is worthy of investigation. The board will then appoint a committee of members especially qualified to make the investigation. Members will receive just compensation for their services. If it is deemed advisable, expert serv-

ices may be employed by the board to assist the committee.

Purpose of Investigation

The purpose of the investigation is to place before the members in concrete form, definite detailed information concerning each enterprise investigated. Such investigation is to be made by men thoroughly qualified by experience and training to determine the facts concerning the enterprise. The result is to be placed before the members of the company for examination and criticism in order that all objections may be met and difficulties solved before stock subscriptions are called for.

Investment

It is expected that the members of the company will have full confidence in any prospectus submitted after such an investigation and will not hesitate to invest sufficient funds to underwrite the project.

Income

The initial operating expense would be furnished through stock subscription. It is proposed that the company charge an underwriting fee which with successful operation, would supply the necessary working capital and provide a fair dividend to the holders of stock in the parent company.

FRANKFORT-ON-THE-MAIN, GERMANY

Following is an extract from the book entitled "European Cities at Work" written by Frederick C. Howe:

"The city (Frankfort-on-the-Main) acquired an area of 1180 acres of agricultural land at a relatively low price and in anticipation of any public discussion of the project. Here it worked out a harbor, transportation, industrial development, and housing programme of the most comprehensive sort. Engineers were employed to plan the whole territory for the various uses to which it was to be put, and 350 acres were deducted for streets, railways, terminals, and embankments along the water basins. A number of harbors were dredged into the land and connected with the river, which were lined with concrete. 110 acres more were used for the harbors proper. After these deductions had been made, 720 acres remained for development purposes, which were laid out for various factory uses, all so connected that the railways, docks, and warehouses could be operated in the most economical manner possible. 150 acres were assigned to miscellaneous traffic, of which 37 acres were dedicated to coal traffic. The 570 acres remaining were set aside for manufacturing sites, of which 135 acres were reserved for large water-front industries and 435 acres were kept for inland factory locations. The navigable shore line of the various harbors is over 9 miles in length and is connected up with 35 miles of railway track and sidings and 30 miles of streets."

"It was obvious that provision had to be made for workmen for this new district, so the city included a housing

project as a part of the programme. The city owns the street railways, and laid tracks out into the suburbs as well as rapid transit lines to distant villages. It was recognized, however, that many of the working-people prefer to live in the city because of the distractions and amusements which it offers, so an area of 157 acres was acquired close by the industrial section for the building of workmen's houses. Upon a portion of this land houses are being built by the city, of which 550 have already been erected. In the immediate neighborhood a large park was laid out with recreation grounds, swimming and bathing establishments, playgrounds and football fields. Not far away is one of the city forests. Together with the private property developed, the harbor and industrial undertaking increased the area of the city by 50 per cent, and when it is completed, provision will have been made for every need of this new community on what a few years ago was cheap agricultural land of little value."

"The city is financing the project by retaining the unearned increment which the development created."

APPENDIX II

TABULATION OF ANSWERS TO QUESTIONNAIRE

As a part of this investigation a questionnaire was sent to the Commercial Organizations of 114 important cities throughout the United States. The answers served in a large measure to shape the views of the writer on the different questions. These views are outlined in full in the preceding pages. Following is a tabulation of the 92 answers recieved:-

Question 1

Do you distinguish between the industrial activity and the general work of your commercial body by detailing this function to a separate organization, such as an Industrial Bureau, etc.? If so, how is the work organized?

	Number
Cities placing this function in the hands of an Industrial Bureau-----	16
Cities relying upon a committee composed of members in the Chamber of Commerce to take care of this work-----	49
Cities not attempting to differentiate between the industrial and other functions of the Commercial Organization-----	27

Question 2

Do you make a practice of offering special inducements such as free-sites, bonuses, exemptions from taxes, etc.?

	Number
Cities making a practice of offering free-sites-----	18
Cities offering a cash bonus as an inducement-----	2
Cities exempting new industries from taxes for a short period of time-----	5
Cities unalterably opposed to practices of this kind-----	67

Question 3

Have you made an industrial survey?

	Number
Cities having completed such surveys-----	10
Cities which have completed the surveys but have failed to keep them up to date-----	8
Cities which are conducting surveys at the present time-----	9
Cities which intend to begin such surveys in the near future-----	6
Cities which have not made and do not propose to make an effort in this direction-----	57

Question 4

Do you hold exhibits of local products?

Yes

21

No

71