THE GOVERNMENT OF GERMAN CITIES.

THE MUNICIPAL FRAMEWORK.

"MUNICIPAL housekeeping," as a science and an art, evolved out of the conditions of life prevailing in the last half of this century, can be observed to better advantage in Germany than in any other country. It is true that the German cities have been somewhat tardy in providing themselves with modern conveniences and improvements; but now having fairly entered upon the task, they are accomplishing it in a more systematic, thorough, and businesslike way than any other cities whether in Europe, America, or Australia. The Germans have been in their habits of life a rather primitive, simple people, less fastidious than the English, French, or Americans. In large part they have been a rural people, and whether in town or in country the average family income has been very small, and the ordinary scale of living extremely modest. The arrangements of the towns have partaken of this simple, old-fashioned régime of family and social life, and have been in like manner primitive and unsuited to the demands of a complex, artificial civilization, and altogether regardless of the new sciences of sanitation and city-making.

But a great change has come over the German nation, and nowhere is its altered character shown more distinctly than in the expansion and progress of the cities. The centers of population are growing with extraordinary rapidity by inflow from the rural districts. The Germans are in the midst of a quick transition from an agricultural into a manufacturing people. The old seats of petty princes or dukes are coming into a transformed and enlarged existence as industrial towns. Railways and traffic have lately become factors of an altogether novel importance, helping to emphasize the distinction between town and country and to modernize the character of the towns.

Simultaneously with this recent growth of industries and town population in Germany, there has been — arising in large part from military success and enhanced international prestige and importance — a marked advance in the standards of living, and a new demand for modern and luxurious appointments. An intense quickening of national pride has made the people and the governing authorities eager to adopt late improvements, and ambitious to rival France, England, and America in matters that Germany had before neglected.

To this work of modern improvement, especially in public appointments, the Germans seem to have brought more of the scientific spirit and method than any other people. Their habits of thoroughness in research, and of patient, exhaustive treatment of any subject in hand, have fully characterized their new progress in the arts of civilized life.

Above all, the Germans had already developed a system of public administration more economical and more infallibly effective than could have been found elsewhere; and they were prepared, when the growth of their cities and the new demand for modern improvements made necessary a great increase in the number and variety of public functions, to do in the best possible way whatever it was decided to undertake. So confident were they, indeed, in the efficiency of their administrative organization, that they dared to assign to the municipalities spheres of action which elsewhere have been left to private effort and control.

GERMAN CITIES GROWING FASTER THAN AMERICAN.

IN the rapidity of its growth, in its regularity, and in its general air of newness, Berlin suggests Chicago. But while Chicago in its buildings and appointments other than governmental and municipal is for the most part superior to Berlin, the German capital is incomparably superior to Chicago in its municipal and public arrangements. Chicago and our other fast-growing American cities find great difficulty in extending urban facilities to keep pace in any decent fashion with the growth of population and the enlargement of area; but in Berlin the authorities have systematically and easily provided for the development of a city that is more than three times as large as it was in 1860, and that has within a few years been transforming all its services and appointments.

We Americans have at home such a surfeit of new towns and new extensions of older towns, that it is not surprising that we should be looking for the old rather than the new in our European travels. The guide-books are all made upon the principle that American tourists are painfully eager to lose nothing of antiquarian

or historical interest, and that they care nothing whatever for Europe as the present-day home of progressive peoples. For the most part, therefore, we fail to appreciate the full force and significance of the immense modern impetus that is transforming European cities. Most of them have an ancient or medieval nucleus, but otherwise they are as new as our American cities, and in many respects they are more modern and enterprising.

Indeed, there seems to be an almost unconquerable delusion in the popular mind that our American cities are the only ones which show the phenomenon of rapid growth, and that their newness excuses their failure to provide well for the common necessities of urban life. I must ask leave to launch a few statistics at this delusion. In 1870 New York was a considerably more populous city than Berlin. It had nearly 950,000 people, while Berlin had barely 800,000. In 1880 Berlin had outgrown New York, and in 1890 it still maintained the lead, having 1,578,794 people as against New York's 1,515,301. Chicago's relative gain has been higher, but Berlin in the last twenty years has added as many actual new residents as has Chicago. Thirty years ago Philadelphia was a larger city than Berlin, but since then it has added only half a million souls to its total number, while Berlin has added a million. These statistics are cited in order to give a comparative impression of the problems Berlin has had to meet in providing for the accommodation of its expanding municipal household.

Let us take another instance. In 1875 Hamburg had only 263,540 people, and Boston had 342,000. In 1890 Hamburg had 569,260, and Boston had 448,000. Hamburg had gained more than 300,000 in fifteen years, and Boston had gained only a little more than 100,000. Yet Boston's growth has been accounted remarkable. Baltimore is sometimes likened to Hamburg for wealth and prosperity. In the early seventies they were of equal size; but Hamburg has grown twice as fast. In 1880 the German port had 410,127 dwellers, and in 1890 569,260, while Baltimore's census for the same years showed 332,313 and 434,439.

The third German city in size is Leipsic. It is a manufacturing town, which had 127,000 people in 1875, 149,000 in 1880, 170,000 in 1885, and 355,000 in 1890. The annexation of suburbs accounts in part for the immense gain of the half decad from 1885 to 1890, but it also accounts for the comparatively small gains of the preceding decad, growth being principally in the outer belt. St. Louis grew from 350,000 in 1880 to nearly 452,000 in 1890; but Leipsic has grown at a much higher rate. It has now well-distanced San Francisco, which was considerably the larger in the seventies.

SOME SPECIFIC COMPARISONS.

MUNICH, which has now been slightly outgrown by Leipsic, though formerly much the larger of the two, is still growing at a very respectable rate. In 1875 its denizens were 193,000 in number, and in 1880, 230,000; in 1890 they were 349,000. It has grown at a much higher rate in the past decad or two than American cities of corresponding size. Breslau, the second city of Prussia, has lost much by emigration; but it grows, nevertheless. Its population had expanded from 272,900 in 1880 to 335,200 in 1890. Meanwhile Cincinnati had grown from 255,139 to 296,908.

In the decad Cologne had grown from 144,800 to 281,800. This may be compared with the gain of Cleveland, Ohio, from 160,000 to 261,000; with Buffalo's growth from 155,000 to 255,600; and with Pittsburg's, from 156,000 to 238,600. Cologne was very much the smallest of the four in 1880, and very much the largest of the four in 1890. Yet Buffalo, Pittsburg, and Cleveland have been accounted most remarkable for their expansion in that decad. Dresden, the charming Saxon capital, had 220,800 people in 1880, and New Orleans, our own charming Southern capital, had 216,000. Thus they were of nearly equal size. In 1890 Dresden had grown to 276,500, and New Orleans to 242,000. A difference of less than 5000 had increased to one of nearly 35,000. Detroit and Milwaukee had each approximately 205,000 people in 1890, and Magdeburg, Prússia, had 202,000. But Detroit and Milwaukee had each about 116,000 in 1880, while Magdeburg had only 97,500. It should be explained that Magdeburg during the decad had annexed some large suburbs; but it remains true that its rate of growth compares favorably with these two American cities. Frankfort-on-the-Main has 180,000 people by the last census, and Newark, New Jersey, has 181,800. Frankfort had 136,800 in 1880, and Newark had 136,500.

Hanover in the ten years had grown from 122,800 to 163,600, and Königsberg from 122,600 to 161,500; Louisville, Kentucky, had in the same period grown from 123,758 to 161,129, and Jersey City had grown from 120,722 to 163,003. Hanover and Königsberg had gained faster than Louisville, but not so fast as Jersey City. Each of the four had added about forty thousand to its numbers. Minneapolis, which ranks with these four in size, though somewhat exceeding them all, had a growth in the first half of the decad that was wholly exceptional. But in the last half it grew not much faster than a number of German cities of similar rank. Neither did Kansas City nor St. Paul nor Omaha. Minneapolis had 129,000 in 1885 and 164,700 in 1890. Magdeburg much outdid

that record. St. Paul had 111,000 in 1885 and 133,156 in 1890. Dusseldorf, with 95,000 in 1880, had 115,000 in 1885 and 144,680 in 1890—which quite distances St. Paul. Chemnitz, that stirring factory town of Saxony, with 95,000 in 1880 and 110,800 in 1885, had 138,955 in 1890—again distancing St. Paul.

Altona, Hamburg's next-door neighbor, had grown from 91,000 to 143,000 in ten years, while Albany, the capital of New York, beginning at just the same point,—91,000 in 1880,—had grown only to 95,000. Rochester, New York, had 89,366 inhabitants (about as many as Altona) in 1880 and 133,896 in 1890, while Altona had 143,000. Chemnitz also had fully kept its lead on Rochester. Our prosperous and growing manufacturing city of Providence, from which many cultivated men and women go to visit that quaint and stationary old German town Nuremberg, has probably never reflected, when congratulating itself upon a growth from 104,857 in 1880 to 132,146 in 1890, that "old" Nuremberg, starting with only 99,519 in 1880,—more than 5000 behind Providence,—had increased to 142,523 in 1890, more than 10,000 ahead of Providence.

Doubtless the comparison begins to grow tedious; but otherwise I could show Indianapolis, Allegheny, Columbus, Syracuse, Worcester, Toledo, Richmond, New Haven, Paterson, Lowell, Nashville, Scranton, Fall River, and all the rest, how their growth has been more than matched by that of flourishing commercial and manufacturing towns of like size in Germany—such towns as Elberfeld, Barmen, Stettin, Crefeld, Halle, Brunswick, Dortmund, Mannheim, Essen, and a dozen more.

PHYSICAL TRANSFORMATION OF GERMAN CITIES.

WHEN one ventures to suggest that American cities are meagerly provided with the best modern facilities, and make but a sorry show in comparison with European cities, there comes the unfailing reply that ours are in their infancy, while those of Europe are venerable with age and rich in the accumulations of a long-realized maturity. The existence of old churches and castles, and of various monuments and collections illustrating the history of art, has given the impression that European cities are old. But for the purposes of our discussion they are younger than their American counterparts. Their citizens are not nearly so rich as those of our cities. They suffer under the disadvantage of loss in productive energy and wealth through the emigration of hundreds of thousands of their best young men after they have reared and educated them. They stagger under such heavy burdens of taxation and compulsory service to maintain the military arm of the general government, that the tax increment that can be used for municipal purposes comes with pain, and is small compared with the revenues we can raise for local outlay in America, where taxes for National and State purposes are comparatively light. Yet, in the face of disadvantages far greater than any that we can present as excuses, German cities have grappled with the new municipal problems of the last quarter of a century, and have solved them far more promptly and completely than American cities have done.

The physical transformation of these cities has been very remarkable. The ground-plan of the modern city is an essential consideration; and there has been much reconstruction of old-time thoroughfares in the central districts of German cities, while the newer parts have been laid out with care and good judgment. The suburban tendency is the key to recent municipal development everywhere. This tendency demands the distinct recognition of a series of main thoroughfares that shall make easy the movement of population to and from the business center. No such condition of things was recognized fifty years ago. All German cities are now adjusting their street systems to the demands for quick transit. The usual American system is the simple checkerboard. The German system is a combination of the radial and concentric with the rectangular and parallel; and it needs no argument to show that the combination system is by far the most convenient. Main thoroughfares in German cities are to-day more conveniently planned and carried through than in American cities.

Good streets are to a modern town what the circulatory system is to a living organism. It is not necessary in Germany to argue that good roadways are cheap at any cost, and that bad ones are so disastrously expensive that only a very rich country like the United States can afford them. New York has begun to construct good pavements, but it lays them gradually and cautiously, and for the most part the existing pavements are inexpressibly wretched. Berlin adopted asphalt some twenty years ago, and has been increasing its use year by year, though most of the city is paved with stone blocks. The maintenance of the streets in general is so much better than anything in America that comparisons are humiliating. There is no reason in the nature of things why the streets of Hanover, which are beautifully paved and kept, should be better than those of Jersey City or Newark, which cities are as large as Hanover, and richer, though their streets are probably the meanest and forlornest in the whole civilized world. The Dresden streets are much superior to those of our one exceptional city, Washington, and those

of Hamburg, Munich, Leipsic, and most of the smaller German cities, are far better and more modern than those of American cities in general.

A STRIKING SUBURBAN TENDENCY.

HAVING recognized the significance and the value of the suburban tendency, the German cities are now undertaking to control the forms of their expansion, and to prevent errors that would require costly future remedies. Annexations of outlying territory are the order of the day. Since 1870 most German cities have widened their bounds, some of them very materially. Berlin and Hamburg have made some acquisitions of ground; Munich has annexed extensive suburbs, notably in 1890; Leipsic in 1889, 1890, and 1891 brought in large bodies of suburban population, and annexed territory which makes it three and a half times as large as it was before 1889. Cologne, which was one of the most congested and constricted of the German cities, is now, by virtue of its great acquisitions of 1888, much the largest of them all. Berlin, Munich, Hamburg, and Leipsic are now of about equal area, averaging somewhat more than 6000 hectares (the hectare being about two and one half acres). Berlin will make very large acquisitions in the early future, definite steps having already been taken. Cologne's new boundaries include 11,000 hectares, and embrace much garden and farming land. But the municipality will be enabled, for purposes of the extension of the street, drainage, and transit systems, for the water and gas supplies, for park purposes, and for the regulation of building, to control from the outset an area surely destined to contain a large population. Magdeburg nearly doubled its area in 1886 and 1887; and Altona, Chemnitz, Bremen, Carlsruhe, and other towns, have in recent years widened their precincts. The movement has, however, only fairly begun, and the next ten years will almost certainly witness a development of superficies, and a distribution of now congested population-masses, that will quite eclipse the achievements of the period 1870–90. The rapid growth of these German cities has been attended, of course, with much speculative building, and the laying out of divers new quarters by private companies. Berlin has been built up in this fashion, and Hamburg, Munich, Leipsic, Dresden, and the other larger towns, all afford abundant examples. But the municipal authorities regulate in the severest fashion the arrangement and width of the new streets thus formed, require the best of paving, demand all that could be desired as to sewers, and govern the character of the buildings as to materials, height, street-lining, and general appearance. Thus the greed of speculators is not allowed to mar the harmonious development of the city, or to endanger its future health by bad construction and inferior sanitary arrangements.

PROVISIONS FOR TRAFFIC AND TRANSIT.

IT is worth while to note, as regards the forms of German cities, that the municipal authorities fully recognize the vital importance of railways to a town's commercial prosperity, and understand that adequate and convenient terminal facilities both for passengers and for goods ought to be as fully considered by the city government as the provision of proper thoroughfares for ordinary street traffic. One of the most serious mistakes that our American cities have made is their failure to provide suitably for the entrance and exit of railroads, and for the central station and yard room that railway traffic requires. Even our newer cities have neglected this matter with a stupidity that is almost unaccountable in view of the fact that nowadays the one question of railway terminals often decides the commercial fate of a town. The European state railway systems are more fortunate than the English and American private systems in finding the towns disposed to grant the necessary facilities for the transaction of their business. Leipsic, for instance, has become a great railway center, and one is impressed with the excellent judgment shown in the location of extensive railroad yards, and of the factories, which lie on the outskirts of the town and have perfectly convenient shipping facilities. Stuttgart also furnishes us an excellent instance of admirable central railway facilities. Terminal arrangements at Berlin are magnificent; and the whole movement of traffic, both freight and passenger, is facilitated to a remarkable degree by the *stadtbahn*, or municipal railroad, crossing the city from east to west, and the *ringbahn*, an encircling railway operated in conjunction with the stadtbahn. These connect with all the lines that come to Berlin, and assist in the collection, distribution, and transfer of freightage.

Furthermore, it is made a municipal function in Germany to utilize to the highest advantage any water highways that a city may possess. Hamburg is the most noteworthy instance. It lies at the head of tidal water, on the estuary of the Elbe, and it has had the enterprise, within the last decad, to create at vast expense the finest harbor and dock facilities in the whole world. The docks are provided with a network of railway tracks and splendid public storage-houses, and thus the highways for the accommodation of the larger traffic of the railways and the ocean-going ships are as perfect as those for ordinary street traffic. And the city is directly or indirectly a very great gainer from these

splendid public works. At Berlin the most casual observer can hardly fail to notice the marvelous use that is made for purposes of commercial navigation of the narrow river Spree. It has been well dredged out, is held in a controllable channel by magnificent stone embankments extending for a number of miles on both sides of the river, and has, below the high quays, broad and convenient stone landings all along the water's-edge. The quantity of freight barged at cheap rates from point to point in the city by means of the Spree is enormous; and the city streets are thus greatly relieved. American cities have made comparatively small use of their watercourses. Dresden in a similar manner derives large advantage from the Elbe; and German cities in general have not spared expenditure to make their rivers or other navigable watercourses a well-utilized part of the arrangements for the convenient passage of persons and traffic.

THE MUNICIPAL STRUCTURE.

ALTHOUGH the framework and general structure of the municipal house are not of vital consequence to good housekeeping, they have a very considerable importance. It happens that the Germans care less than the French for a modern and regular system — one that shall conform to geometrical rules and harmonize with a philosophical ideal. In the United States our reformers have too often quite lost sight of the aims and objects of good government in striving after good government as an end in itself. Their attention is concentrated upon the structure and mechanism, and, so far as the cities are concerned, they keep changing it perpetually. They are forever overhauling, repairing, or reconstructing the house. But they seem to have no very attractive or inspiring uses for which they are eager to make the house ready. The Germans, on the other hand, have taken their old framework of city government as they found it, and have proceeded to use it for new and wonderful purposes, altering it somewhat from time to time, but not allowing its defects to paralyze the varied activities of the household.

The different states of Germany — Prussia, Saxony, Bavaria, Wurtemberg, Baden, and the rest — have their distinct municipal systems prescribed by general law. Variations of detail are numerous and marked, yet the systems of the different states are essentially similar. The Prussian laws providing for municipal government are a part of the great administrative scheme established in the legislation of Stein and Hardenberg early in this century. Many changes have been made, but the municipal constitutions of Prussia remain in their chief characters what the law of 1808 made them. Through the previous century it had been the Prussian policy to sink the independence and individuality of the *gemeinden* (the municipalities) in the absolutism of the state, and even to go so far as to treat old municipal property as belonging to the state at large. The towns had practically no freedom in the management of their own local establishments and institutions.

But all this was changed in the legislation of 1808. As in the French municipal law of 1790, the municipalities were recognized as ancient units of government, organic entities, with their own properties and functions, and with the right of entire self-government within the sphere of their strictly local and neighborhood concerns. They were given elective assemblies, or councils, and an executive body, or magistracy, composed of a burgomaster and a number of associated magistrates; the burgomaster (mayor) and his executive corps (*magistrats-mitglieder*) being chosen by the popularly elected council (*gemeinderath*), and given the complete charge of administrative work. The system was from time to time extended to the provinces that Prussia absorbed. In its general principles, moreover, it was incorporated in the laws of the other kingdoms and principalities that with Prussia now make up the German empire.

THE FRANCHISE AND THE ELECTORAL SYSTEM.

IT would not have been possible in the Germany of Stein and of Frederick William III. to establish representative institutions upon a basis of popular equality. The Prussian system emphasized the property qualification, and that system remains to-day. The voters are those who pay certain kinds of taxes above a minimum amount, and this restriction excludes perhaps ten or fifteen per cent. of the men of voting age. The electoral system is somewhat complicated. A city — Berlin, for instance — is laid off in a number of electoral districts. The voters are listed in the order of the sums they pay for taxes, with the heaviest taxpayer heading the list. They are then divided into three classes, each of which has paid one third of the aggregate amount. Thus the first class will contain a group of very heavy taxpayers, the second will be made up of a much larger number of men of moderate fortune and income, and the third class will comprise the great mass of workingmen and small taxpayers. In Berlin elections it may perhaps be said that 4 per cent. of the voters belong to the first class, 20 per cent. to the second, and 76 per cent. to the third. Each class in a given district elects a *wahlmann*, or elector, and the whole number of wahlmänner

forms an electoral college that chooses members of the gemeinderath.

Thus the elections are indirect, and a voter of the first class has as much weight as twenty voters of the third class, or as five of the second; and a voter of the second class counterbalances from three to five of the third. In large parts of the German empire, it is true, the class system is not maintained in municipal elections, and in other parts the voters of the three classes choose their representatives directly without the intervention of the wahlmänner. The Berlin system is, however, the most typical for Germany at large. At a recent Berlin election, held in one third of the districts, for the renewal of one third of the council, there were registered as qualified voters 94,765 men, of whom 3540 were in the first class, 17,336 in the second, and 73,889 in the third. It happened that of these classes 1925, 7634, and 21,830 actually appeared at the polls, considerably less than half of those empowered to vote. The first-class voters participated in the highest proportion. But each class chooses its third of the electoral college, regardless of the force it musters on election day. An extreme instance of the preponderance that this system gives to wealth is afforded by the manufacturing city of Essen, where in a population of some 80,000 there are three men who pay one third of all the taxes, and are therefore empowered to designate one third of the electors. The Krupp gunworks form the great industry of Essen, and at the last municipal election *one* voter appeared for the first class and counted for quite as much as the nearly two thousand men who appeared for the third class. In the cities of Saxony, Bavaria, and Wurtemberg, the three-class system is not in vogue, but there are considerable restrictions upon the franchise. Where the class system exists, it is not always true that the voters select men of their own class to represent them.

THE ELECTED COUNCIL AS THE VITAL FACT.

So far as the voters are concerned, whether in Berlin, Breslau, Cologne, Magdeburg, or the other cities where the class system remains, or in Stuttgart, Munich, Leipsic, or in any of the cities where there are no discriminations introduced among the enfranchised, their one task is the selection of a good municipal council. Everything in the life of the gemeinde revolves about this one central body. It finds the burgomaster, designates his expert associates of the magisterial coterie, supplies the means for carrying on the city government, and represents in its own enlightenment, ability, and aspirations the standard and the character of the community's progress. It is to this body that one must go to discover the secret of the consistency and continuity of German municipal policy. Much of the detail of the organization and method of German city government would be only tedious and cumbersome in an article like this. But I must beg permission to make as emphatic as possible this fundamental point, that the central fact in such city government is the popularly elected municipal council. I am the more solicitous that this very simple proposition should be entertained, for the reason that I have known American students in Germany to acquire a very meritorious knowledge of much of the technical detail of municipal administration, and yet to overlook the essential principle of unity in that administration, and to regard the burgomaster and executive council as holding a position corresponding to that of an American mayor and his chief appointees. However peculiar in a hundred details the German system may be, it is like the British and the French systems, which I have already described in these pages, in the main fact that the voters elect and maintain a representative common council of considerable size, and sitting in one chamber, which has in its hands for exercise directly or indirectly the whole authority that exists in the municipality. It is a body large enough to contain men of various opinions, and it acts openly, with full responsibility.

Stability in the German municipal councils is secured by partial renewal. Thus the councilors of Berlin and the Prussian cities are elected for six years, and one third of the seats are vacated and refilled every two years. In Berlin there are forty-two electoral districts, and these are arranged in three groups of fourteen each. Each group elects its councilors in its turn. Thus, group I chose its forty-two councilors in 1889, group II had its turn in 1891, and group III renewed its representation in 1893. Each district elects three councilors, corresponding to the three classes of voters, and thus each group contributes forty-two to a total elective council of 126 members. Taking German cities in general, the usual period for which councilors are elected is six years, with the plan of renewal in three instalments. But Strasburg and Metz retain the French system of entire renewal at each election, their period being five years. Munich, Nuremberg, and the Bavarian towns, on the other hand, give their councilors nine-year terms, and renew one third of the body every three years. Dresden, Chemnitz, and other Saxon towns are like the English municipalities, in giving councilors three-year terms with annual renewals of one third the membership; and Stuttgart renews one half of its council every year. But the six-year term is most

prevalent, and most characteristic of the German system.

European cities all the way from Scotland to Hungary would seem to have arrived by somewhat independent processes at similar conclusions as to the advantageous size of the popular municipal body. Thus the great capitals have found a body of a hundred members, more or less, a convenient size. The London county council has 138 members, the Berlin council 126, the Paris council 80, with prospect of enlargement to more than 100, and the new Vienna council has 138. Large commercial towns, or minor capitals, find a body of from 40 to 60 men the most satisfactory. Such is the size of the councils of the great British towns and of the principal French and Italian cities. Making comparison with Germany, we find that Munich and Leipsic have councils of 60 members, Dresden one of 72, Breslau a body of about 100, Cologne one of 45, Frankfort one of 57, Magdeburg of 72, Chemnitz of 48, Strasburg of 36, Altona of 35, and Stuttgart of only 25. The average for all German cities, taking a list of forty of the most important ones, would be a municipal council of about fifty members. This is not a matter of minor detail, nor do I adduce it from a mere fondness for the statistical. In constituting our State legislatures we have shown some grasp of the question how large to make the representative bodies; but in forming our American city governments we have been utterly at sea, and have produced results of the most whimsical and bewildering variety. European conclusions need not be accepted as a guide, but they may, on the other hand, be usefully noted for purposes of comparison.

THE COUNCIL AS A FOCUS OF GOOD CITIZENSHIP.

MUNICIPAL councilors in Germany are, as a rule, very excellent citizens. It is considered a high honor to be elected to the council. Membership is a title of dignity that merchants, professional men, and scholars are usually eager to hold. No salaries are paid to the councilors, and a penalty is attached to refusal to serve if elected. The sentiment toward these positions is much the same in Germany as in Great Britain, though stronger with men of high education in German than in British towns. The reëlection of good councilors term after term is common in both countries. It would be difficult to estimate fairly the influence of the class system in Prussia upon the character of city councils as regards their conservatism, intelligence, and business ability. Undoubtedly the recent growth of the social democracy would have a sharper influence upon the city councils if the class system were abolished, and if the municipal franchise were made identical with the simple manhood suffrage that exists for purposes of representation in the imperial legislature, the Reichstag. Thus in France, with universal suffrage, the socialists have of late been entering municipal politics with much zeal, in pursuance of the plan of an increased communal activity for the benefit of the masses. Already German cities would appear, from the point of view of other countries, to be far advanced in socialistic undertakings; yet it must not be forgotten that the municipal ideals of a thrifty burgher collectivism, and those of the social democracy in German cities, may tend as far asunder as those of the *bourgeoisie* and the proletariate in France. As yet German city governments are in the hands of the educated and thrifty classes. What social overturning will some day give these splendid business machines into the keeping of the working-classes is a speculative topic that may well be suggested here, but not discussed.

To some extent the characteristics of German city councils may be inferred from the number of real-estate proprietors in them. It is common to require that a certain proportion at least shall be house-owners. In Berlin about three fourths of the councilors are proprietors, and in Breslau nearly as many. In Frankfort, Hanover, Dusseldorf, Nuremberg, and many of the smaller cities, the house-owners are eighty or ninety per cent. of the total number of councilors. But in the Saxon cities — as Leipsic, Dresden, Chemnitz, and in a few others elsewhere — existing laws require that one half the councilors shall be householders and that one half shall not be. This provision is supposed to protect property interests in a group of cities which, as I have already explained, do not give any excess of representation to propertied voters under a class system. The great mass of citizens are of course renters of apartments in "flat-" or tenement-houses, and they are assured a full half of the municipal council that has to adjust taxation, and must of necessity determine questions in which the interests of the occupying and the owning classes would seem to differ. The presence of men of eminent scientific or economic, or other expert, knowledge is another of the characteristics of the German councils. Thus the Berlin body, as those of other university cities, contains more than one learned professor whose influence is strongly felt in some important line of policy or department of administration. The councils form themselves into standing committees for working purposes, and choose one of their own members as presiding officer, and another as his deputy, although in Cologne, Dusseldorf, Elberfeld, and some other places, the chief burgomaster is brought in as the chairman of the council.

In addition to the magistracy and the council, there is in Berlin a body of about seventy-five so-called "citizen deputies," who are selected by the council for their general fitness to serve as associates on committees charged with the oversight of various municipal interests, such as parks, schools, the care of the poor, and the sanitary services. They have no authority to vote in the council, but they illustrate, at the center of administration, the excellent practice which is followed throughout the entire ramification of German city government, of enlisting the coöperation of unofficial citizens in managing the ordinary concerns of the community.

THE BURGOMASTER AND EXECUTIVE MAGISTRATES.

THE burgomaster and magistrates are the most highly trained experts that a German city can secure. The burgomaster is an expert in the general art of municipal administration. Associated with him in the magisterial council are experts in law, experts in finance, experts in education to administer the schools, experts in engineering to oversee public works of every character, experts in sanitary science, experts in public charity, experts in forestry and park management, experts in the technical and business management of water- and gas-supplies, and so on. The analogy would not be perfect, but it would answer roughly to compare the governmental structure of a German city with that of a railway corporation, in which the board of directors, chosen by the stockholders, appoint a general superintendent or manager, a general passenger agent, a general freight agent, a chief legal officer, a chief engineer, a superintendent of motive power, and other general officers, and leave to these high-salaried experts, drawn from the service of various other transportation companies, almost the entire management and operation of the road. The shareholders represent the voters of Berlin, let us say; the board of directors are the municipal council; the general superintendent is the chief burgomaster; and the general officers at the head of departments are the magistrates.

The *magistratsrath*, or *stadtrath*, of a German city is, then, a body of distinguished and honored, highly paid, professional, expert employees, and not a body of citizen representatives, although experienced members of the body of citizen representatives may be, and not infrequently are, promoted to membership in the magistratsrath. The professional civil service is a vastly greater and better-established field of employment in Germany than in England or America, and it is particularly difficult for an American to appreciate its position and significance. The mayor of an American city is usually some well-known citizen who is called temporarily from private life to occupy the most authoritative place in the corporation. The burgomaster of a German city is a civil servant — the permanent head of a permanent body of trained officials. The difference between the two is somewhat like that between our secretary of war and the general commanding the army. I have spoken of possible changes in the spirit and the objects of German city governments when the working-men shall have become dominant at the polls, though I do not believe that there is any likelihood whatsoever of a change in what we may call the method, as distinguished from the motive, of administration. That is to say, whatever may be the political or class complexion of the citizens' representative council, that body will continue to employ experts to carry out its plans on the principle of a permanent civil service. We may deprecate German officialism as much as we like, but the Germans will not cease to manage the business affairs of their municipal corporations through the employment of a trained, professional service until American railway corporations cease to seek the best technical and expert talent, whether in administration or in engineering, to carry on their enterprises.

A COMPARISON OF THE GERMAN, FRENCH, AND ENGLISH SYSTEMS.

IT may be useful to note some points of difference and resemblance between the German, English, and French systems of executive government in cities. The English have a single, central elective council, to which the councilors themselves add aldermen in the proportion of one sixth of their own number. These aldermen are almost always ordinary councilors who have served for several terms, and have become especially useful on account of their experience. They have no different functions from councilors, but hold their terms for six instead of for three years, and are very commonly made chairmen of standing committees. The mayor is designated by the council for one year, and he is usually an alderman, his duty being simply that of presiding officer and titular head of the corporation. He serves on committees like other members of the council, and when his "year in the chair" is at an end, he resumes his place on the floor. There is a standing committee for each important branch of the municipal service, and this committee selects (subject to confirmation by the full council) a permanent, expert chief of the department, who organizes it in detail, and superintends its operation. Thus, besides a permanent staff of high general offi-

cials, such as the town clerk, the borough engineer, and the medical health officer, there will be a superintendent of water-supply, a chief of the fire department, a chief sanitary officer, a chief of police, and various others. These experts will have been secured upon their pure merits, often from distant cities. The system works very satisfactorily. The expert chiefs are in constant touch with the chairmen of their supervising council committees, and always attend committee meetings. The whole municipal service is held in coördination through reports made to the full council by the committees. The council thus meets very frequently, and a large amount of labor is entailed upon the chairmen of committees.

The French system is quite different. The elected municipal council designate the mayor from their own number, and also appoint from their own body a group of their most experienced members to serve as his "adjuncts," and to form with him a *corps executif*. The mayor, in turn, assigns to each of these adjuncts the supervision of a department of the municipal service. A number of ordinary members of the council are then grouped around each such chairman as his consulting committee, but the mayor is the controlling spirit in the total executive administration. Under him and his executive corps the expert civil service is organized; and while the full council holds only a few stated meetings in the year, the executive corps is in very frequent session, and the departmental business is thus kept in harmonious relationship.

Now the German magistratsrath is the glorification of the expert chiefs of departments that one finds in the English system. It may be regarded as a fusing into one supreme executive group of these professional and salaried experts and the level-headed old chairmen of council committees. This statement will be the better understood when the structure of the magistratsrath is still further analyzed. The Berlin magistracy is composed of thirty-four members, including the chief burgomaster and his substitute and next in authority, the second burgomaster. Of this body, seventeen are salaried and are appointed for twelve-year terms, and seventeen are unpaid, and are chosen for six-year terms. The salaried men, including the mayor and deputy mayor, are selected for their expert qualifications, exactly as a board of railway directors would make up its staff of general officers. They come from the civil service of other German cities, where they have made a record, or from the departments of the royal Prussian service, from which the higher salaries paid by the city tempt the best and most ambitious men. The paid element in the magistracy includes legal officers, the city treasurer, architects, civil engineers, school administrators, and other experts. It is perfectly understood that these men, including the mayor, will be reappointed at the end of their terms; and their tenure is practically for life, unless they forfeit their positions by their own misconduct. The seventeen unpaid magistrates may be said to represent the highest development of non-professional experience and skill in municipal affairs. They have some resemblance to the aldermanic element in the English councils, or to the chairmen of English council committees. They have in most cases served efficiently as members of the elected municipal council, and are citizens with sufficient leisure and means to devote their time to the service of the city, from the motive of public spirit mingled with that of satisfaction in the honor of high position. For these posts are held in the highest esteem, and the men appointed to them are often the equals in administrative, or even in scientific and technical, qualifications of their salaried associates. These unpaid places are also practically permanent, the incumbents being usually reappointed term after term. Sometimes vacancies in the salaried places are filled by the transfer of men from the unsalaried element of the magistracy. Naturally the most confining and arduous duties of administration are usually assigned to the paid magistrates, while the unpaid men serve in capacities more advisory than severely executive; yet it often happens that the unpaid members assume full charge of very important departments of the public service.

ADMINISTRATION BY PERMANENT EXPERTS.

THE mayor or head of the municipality — in some cities called the *oberbürgermeister* and in some simply the *bürgermeister* — is the general manager of the whole mechanism of administration, and usually the guiding spirit as well in the economic policies of the municipality. He may feel that success in the management of a smaller city will perhaps be rewarded by the prize of the mayoralty of a greater one. Thus the late Dr. Forckenbeck, mayor of Berlin, had made his reputation as mayor of Breslau, and was called to fill a vacancy in the same position at the capital. Many cities appoint their mayors for life, and some make a trial appointment for a term of years and then grant a life lease. Thus the mayors of Munich, Leipsic, Dresden, Hanover, Stuttgart, Chemnitz, and various smaller cities, are life incumbents; while those of Berlin, Breslau, Cologne, Magdeburg, Frankfort, Königsberg, Dusseldorf, and numerous other places, are appointed for twelve-year terms. Strasburg, Metz, and the Alsace-Lorraine towns, on the other hand, grant only five-year terms, following French rather than German modes of city organization.

The tenure of the paid magistrates in general follows that of the mayors, and the cities which give life appointments to the chief of the municipality commonly give them also to the expert professional element among his associates, while limiting the unpaid magistrates to terms corresponding with those of the popularly elected councilors. Duties are so well distributed among the magistrates that there results the highest type of executive efficiency, and the least possible friction or waste of energy. New departments of administration may either be assigned to the portfolios of existing magistrates, or may be provided for by the appointment of additional members. Thus the magistratsrath is sufficiently flexible to respond to the changing circumstances of a city, and the presence of its unsalaried citizen members keeps it always sufficiently in touch with the spirit of the community. It should further be said that in the details of administration the magistrates have the coöperation in various ways of numerous unofficial citizens serving in a voluntary or honorary capacity on countless sub-committees.

Nearly all the cities in Germany, great and small, maintain the plan of a magisterial council composed of paid and unpaid members. In Dresden 14 are paid and 18 are unpaid. The 14 have been very largely drawn from the service of other and smaller cities, while the 18 have been promoted to the magistracy after valuable service in the elected council. Leipsic has 12 paid and 15 unpaid magistrates, Munich 16 and 20 respectively, Breslau 11 and 13, Frankfort 9 and 8, Hanover 8 and 9, Nuremberg 9 and 17, Chemnitz 9 and 16. In many of the smaller cities, the unpaid members predominate largely. Stuttgart pays its mayor alone, and appoints all its other magistrates from its own public-spirited citizens, who give their services freely. But it is a marked exception to the rule.

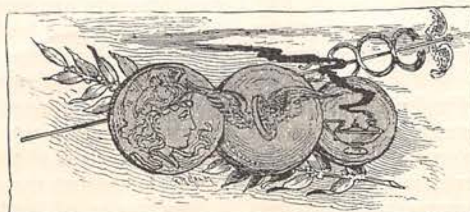
OFFICIALISM AND EFFICIENCY.

CIVIL-SERVICE salaries in general are very small in Germany, for the reasons that positions are permanent, pensions are given to retiring officials, and such posts are considered socially desirable, and are much sought after. Comparatively, therefore, the pay of burgomasters and magistrates is considered very large by the German official class. The mayor of Berlin receives 30,000 marks ($7500), and the salaries of other German mayors range from that figure down to about 10,000 marks ($2500). The deputy burgomaster has the next highest salary — 18,000 marks in Berlin, and from 6000 to 12,000 in other cities. The average pay of the Berlin magistrates is about 12,500 marks, while if one should average a hundred or more German towns, great and small, the current yearly pay of this class of expert officials would be found to be about 6000 marks ($1500). Such remuneration is tempting enough to give the cities an abundant supply of trained talent from the universities and technical schools, and from the various lines of state service. Under the mayor and magistrates are the numerous officials of all grades and ranks who constitute the membership of the municipal civil service, and who are trained men in their respective departments.

Such, then, is the framework and structure of the German municipality. It meets the demands made upon it. The German mind has a clear conception of the municipality as an organization for business and social ends, and of the municipal government as a mechanism for the accomplishment of those ends. "Officialism," so called, expert and highly organized, results inevitably. I am not advocating the introduction of precisely the German type of officialism into our American city life. Indeed, I have no desire to hold any argument with those who do not believe in the development, for our purposes, of a permanent, skilled, non-political body of city officials. My only object in this paper, as in some others I have written, is to make comparison easier. For my own part, I see no possible reason why, having city business to do, we should be unwilling to have it performed in as businesslike a manner as we should demand in the conduct of a private enterprise. Nor do I see how an acceptance of the idea that the municipal corporation exists for the conduct of a series of business and social enterprises can comport with the rejection of the idea of a permanent, expert body of administrators; that is to say, a somewhat highly developed officialism.

In another article I will speak of the working functions and practical results of German city government.

Albert Shaw.



WHAT GERMAN CITIES DO FOR THEIR CITIZENS.

A STUDY OF MUNICIPAL HOUSE-KEEPING.

IN Germany the community, organized centrally and officially, is a far more positive factor in the life of the family or the individual than in America. The German municipal government is not to be sharply distinguished from the municipality, and the municipality is the aggregation of human beings and human interests included within the territorial boundaries that fix the community's area and jurisdiction. There are, in the conception of a German city government, no limits whatever to the municipal functions. It is the business of the municipality to promote in every feasible way its own welfare and the welfare of its citizens. This conception must be carefully distinguished from socialism, with which it seems to have much in common, although I could easily give a great number of illustrations to show how independent of each other the two things are.

The German city holds itself responsible for the education of all; for the provision of amusement, and the means of recreation; for the adaptation of the training of the young to the necessities of gaining a livelihood; for the health of families; for the moral interests of all; for the civilizing of the people; for the promotion of individual thrift; for protection from various misfortunes; for the development of advantages and opportunities in order to promote the industrial and commercial well-being; and incidentally for the supply of common services and the introduction of conveniences. The methods it employs to gain its ends are sometimes those advocated by the socialists, and sometimes they are diametrically opposite.

PUBLIC WORKS IN GERMAN CITIES.

IT is not strange that the American observer should at first be most impressed by the splendid efficiency of German city governments in the prosecution of public works and enterprises. This is largely due, of course, to the superb and continuous organization of the executive administration. The burgomaster is actually or virtually a life incumbent, and his magisterial associates who conduct the various departments either hold their places by life tenure or else upon terms practically as permanent. The city council, representing the people's will, is renewed by instalments. The terms are long, and reëlections are so usual that the personnel of the body is transformed very slowly, and nothing like an abrupt or capricious change of policy is ever to be feared. Consequently it is possible to make long plans, to proceed without haste, to distribute burdens through periods of years, to consult minute economies, and to make an even, symmetrical progress that has far more of tangible achievement to show for every half decad than could be possible under our spasmodic American methods. A German city, let us say, decides to have well-paved streets, and to modernize its whole thoroughfare system. It proceeds to learn everything that can possibly be known about street-making. The effect of its immediate climatic conditions upon different kinds of materials is studied theoretically and experimentally. The municipal department of public works does not move a step until every detail of the problem from the engineering and from the financiering standpoint has been thoroughly solved.

All over Germany these departments are busy carrying out the mandates of their respective municipalities, and creating on permanent lines the material attributes of the well-ordered modern city. Nothing is hurried, yet nothing seems to lag when once begun. Street systems are rectified. New suburbs are judiciously laid out. Here a new water-supply, introduced from high sources, employs engineers, architects, and conduit-builders. In another city new sewers are in progress, on a plan for the complete and final drainage of the place. River frontages are undergoing magnificent improvement for purposes of water-traffic. Gas-works, electric plants, market-houses, public abattoirs, school-buildings, epidemic hospitals, bridges, wharves, subways, or whatever else the expanding requirements of the municipality may ordain — all are under construction by methods that insure the highest utility and the greatest permanence. All goes on with a combination of close economy and generous foresight such as no other nation has ever exhibited.

THE MODERNIZING OF BERLIN.

BERLIN's new era of municipal progress may be said to date from 1861. In that year it annexed considerable suburban territory. The old city walls were torn down to give free communication with the new quarters. The emperor William I. came to the Prussian throne in 1861, and his accession marked the beginning of a

liberal policy on the part of the state toward the city of Berlin. The new *rath-haus* (city hall) was begun in that year. Prussia's advance among European powers gave Berlin an ambition to rival Paris. The influence of the Haussmann transformation of Parisian streets was felt in the German capital. The successive wars and Prussian victories of 1864, 1866, and 1870–71, ending with the formation of the German empire and the designation of Berlin as its capital, enormously stimulated the municipal life. A policy of bold initiative was entered upon. Boulevards were constructed, and the new suburbs were handsomely laid out. The royal government had always controlled the inner street-system,— together with the paving, the drainage, the Spree navigation, and the bridges,— and had allowed a private company to furnish the water-supply. A private company also controlled the gas-supply. Education was largely in private or clerical hands. But the awakened municipality acquired from the general government in 1874 the control of the streets, and set about reforming them. It entered upon projects of widening and straightening lines of main thoroughfare, and of laying good pavements. The process has gone on steadily to this day, with magnificent results. The city acquired control of the shallow and sluggish Spree, embanked it with massive walls, flanked it with broad stone quays, dredged it for heavy traffic, and replaced its old wooden bridges with modern structures of stone and steel.

In 1873 the municipality acquired control of the water-supply, and at once proceeded to create a new and improved system. It also determined to abandon the growingly dangerous practice of draining the city sewage into the diminutive Spree; and it entered not only upon a marvelous system for the disposal of sewage, but also proceeded, in the interest of the public health, to create a great series of sanitary institutions, including municipal slaughter-houses and market-halls, hospitals for infectious diseases, unified arrangements for public and private cleansing, and systematic inspection of food, houses, and all conditions affecting the public health. The beginnings of the municipal gas manufacture had dated from about 1870, and the success of the experiment led to very great enlargements in 1875. Meanwhile, education had been municipalized with an energy and thoroughness perhaps unprecedented anywhere. Manufactures and railways had been encouraged, and technical and practical education had been so arranged as to promote Berlin's development as a center of industry. Parks, recreation-grounds, and gymnastic establishments were provided for the people. Housing was at length brought under municipal regulations of a very strict character, in the interest of the working-masses; and an excellent and comprehensive system of street-railways was devised — under municipal inspiration, though under private management — for the better facilitation of local transit, and the wider distribution of the rapidly growing population. Berlin is about four times as large as it was in 1860, and the immense influx of people, chiefly of the working-classes, has been received and accommodated with an ease that seems nothing short of magical.

BERLIN'S WATER-SUPPLY AND DRAINAGE.

THE sanitary authorities at Berlin have led the world in recent inquiries into the relation of water-supply to public health, and the character of the service rendered by the Berlin waterworks is constantly improving. Science has triumphed notably over natural difficulties, and the municipality will be able, in developing the service, to keep pace with the demand. When the Berlin authorities decided to establish a metropolitan water-supply, they also determined upon another and still greater undertaking. They perceived that the modern city requires, as the complement of a good system of pure water distributed through every street and every building, an equally good system of house-drainage and of sewage-removal and -disposition. The modern ideal is a strong, pure volume of water, derived from sure and constant sources that are beyond danger of pollution, forced by ample pressure through a network of mains and pipes penetrating every abode, and then, contaminated by use and saturated with refuse from closets, kitchens, and street-drainage, collected again, and carried off in sewage tunnels to some safe destination.

Berlin had drained into the Spree, and had used vaults for solid waste instead of the modern all-receiving sewers. Good drainage was as necessary as good water, and the permanent discharge of unpurified sewage into the Spree was out of the question. Artificial purification, and the manufacture of fertilizers from the precipitated solids, would have been possible; but Berlin wisely adopted the better plan of natural purification by the irrigating of land. Immense research was bestowed upon the subject, with the result that the Berlin drainage is the most perfect in the world, and, so far as physical forms and conditions are concerned, is unquestionably that city's most notable achievement in municipal housekeeping. The city was divided into twelve drainage districts, called "radial systems," the divisions being arranged upon topographical considerations. The sewers of each district were to converge at a common center, at which would be located a receiving-

basin and steam pumping-works. A tunnel was to connect each of these district centers with the reservoirs and pumping-works of a sewage-farm some miles distant.

THIRTY SQUARE MILES OF SEWAGE-FARMS.

EXCEPTING for some thinly populated outskirts, all the houses of Berlin are now connected with the new drainage-works, which are carrying annually from 60,000,000 to 70,000,000 cubic meters of sewage to be distributed by scientific irrigation over the surface of municipal farms having an aggregate extent of more than 20,000 acres, or upward of thirty square miles. Additional land has been bought from time to time. It is interesting to note that a city the municipal limits of which include only twenty-five square miles should have acquired an outside domain of thirty square miles as a place for the discharge of its liquid waste. The Berlin sewage-farms were tracts of rather poor and sandy soil; but land is not very cheap in the vicinity of so great a city, and the purchase-money reached about 15,000,000 marks. An additional 15,000,000 marks had been spent prior to 1893 in laying out the farms, trenching and tiling them for irrigation purposes, and equipping them with the necessary buildings and improvements. At that time there had been expended upon the radial system in Berlin and the discharging-tunnels about 65,000,000 marks, making a total investment of nearly 100,000,000. With the further outlay to be made in completion of the system as a whole, the new Berlin sewage-works, including the farms and their improvements, may perhaps be said to constitute a 120,000,000-mark ($30,000,000) plant.

From an American point of view it is novel to consider a city's drainage-works as a self-sustaining or productive enterprise, like its waterworks and its gas-works; but it is in that light that Berlin regards it. Before the new system was introduced, the citizens had to pay for the removal of night-soil, etc. The city now charges a moderate sewage rate against all property that the system serves. The parts of the farms that have been brought under closest cultivation are already very profitable, although the net income from the entire thirty square miles does not yet pay the full interest on the investment, for purchase and improvement, of 30,000,000 marks. The fertilizing value of the sewage is so great, and the administration of the farms is so superb, that within a very few years the investment will have become enormously productive. On each of the farms are nurseries of young fruit-trees, and considerable areas of orchard have already begun to yield some fruitage. Prodigious crops of vegetables are grown, and the yield per acre of cereals and grass is similarly remarkable. Within a reasonable period the sewage-farms will have earned profits enough to pay back all that was invested in them, and eventually they will be a source of surplus income that will materially lessen the load of municipal taxation. Meanwhile, from the sanitary point of view, the system is an unqualified success.

HAMBURG'S NEW SYSTEM OF FILTERED WATER.

THE problems of water-supply and drainage —one or both — have in recent years forced themselves upon many other German cities besides Berlin. Hamburg's experience is especially worthy of note. The second city in the empire, with a population of 600,000, with great wealth, and vast shipping and commercial interests, Hamburg had long been aware of the need of a pure water-supply. Its situation in a flat region at the head of tidal water in the Elbe, had seemed to make necessary the continued use of the river water, in spite of its unwholesome condition. But Hamburg received a great impetus in all directions from its inclusion in the German Zollverein, a few years ago, and from the success of the joint municipal and imperial project of great harbor improvements. As had happened earlier in Berlin, a conjunction of political, commercial, and sanitary motives now stirred the Hamburg authorities to an unprecedented activity. A magnificent new city hall, to be opened this year, was entered upon as a symbol of the new municipal era. As the prime sanitary reform, it was determined to construct the greatest and most complete filtration plant in the world, to supply the city with an unlimited quantity of Elbe water purified to meet the severest tests of chemist or bacteriologist. The new works were under construction when the frightful cholera epidemic of 1892 swept away thousands of victims. It was demonstrated that the disease had been propagated through the use of Elbe water, and that filtration would remove the cholera germs. The new works were to have been ready for use in 1894; but by great effort they were completed and put into operation in May, 1893.

During last summer and autumn, the river water, when introduced into the subsidence basins and filters, contained millions of cholera germs to the cubic inch. As it emerged, and was supplied to the city, the water was as safe and wholesome as if it had been brought from high Alpine sources. The filtered water averted the return of the epidemic in 1893. So striking an object lesson in municipal health administration has never been presented before, and its effect will have been felt everywhere in Europe. Hamburg, meanwhile, is introducing various other sanitary reforms of great value.

REFORMED WATER AND DRAINAGE AT BRESLAU AND MUNICH.

BRESLAU, which ranks fifth in population among German cities, is one of the model municipalities. It lies on both banks of the river Oder, from which stream it pumps its water-supply. It has for some years successfully filtered the water, and it also has carried into full execution a system of modern sewers and *riesel-felder* (sewage-farms) which leaves little to be desired. The waterworks are a source of large net income to the city, and the farms, which are rented to tenants, seem also to be a profitable investment. The entire population is served by the waterworks, and all the house and street drains empty into the tunnels that discharge into the basins of the *riesel-felder*.

Munich had long suffered from an unenviable reputation throughout Europe for its high mortality rate, and particularly for the prevalence of malignant forms of typhoid fever. There were thousands of cases of fever every year, and the number of deaths from that cause alone was high in the hundreds, in some years exceeding a thousand. In 1883 a new water-supply from pure springs in the Alps was brought into Munich, tainted wells were closed, and the foul river water was superseded for drinking purposes. As soon as the new order of things had become fairly established, the yearly deaths from typhoid fever could almost be counted upon the fingers of one's two hands. The new water-supply of Munich was attended by other sanitary reforms, including improved sewers and the substitution of a magnificent municipal abattoir, with all modern conveniences and ample cattle-markets and yards, for about eight hundred small private slaughter-houses that had existed in different parts of the city. The introduction of Alpine water seemed a bold undertaking at the time but it has been an easy matter to make the works earn surplus profits after paying all expenses and providing for interest and sinking-fund. I should be glad if space allowed me to describe the improved water and drainage of Frankfort-on-Main and of smaller cities such as Brunswick and Dantzic.

STREET-CLEANING IN GERMANY.

CLEAN streets and alleys, and immaculate back yards, were certainly not conspicuously characteristic of German cities twenty years ago; but the recent improvements in water-supply and drainage, as well as in general sanitary administration, might naturally be expected to have the accompaniment of reformed cleansing arrangements. Moreover, clean streets had been made feasible by the smooth, new paving of roadways and sidewalks. As a rule, the streets of German cities are now kept in a state of enviable cleanliness. Berlin's thoroughfares are scrubbed and swept continually, under a system that is perfectly organized, and that costs less than $500,000 a year. It is a flexible system, which provides for the prompt increase of workmen in bad weather, and is never helpless in the presence of a sudden snow-fall. The central streets of all the leading German cities are thoroughly cleansed once a day, at night or very early in the morning, in addition to which "flying columns" of street-cleaners are on constant day duty to remove horse-manure and other accumulations. In the residence quarters of most German cities it is still the rule that street sweeping is an obligation that rests upon the property-owners or occupiers. Berlin, Dresden, Hamburg, Frankfort, and some smaller cities, provide a full municipal service, while in Leipsic, Cologne, Stuttgart, and other places, the cleansing is partly municipal and partly private.

So far as I am aware, Dresden is the most fastidiously clean of all the German cities. It extends the uniform daily cleansing to a large area. Berlin's district of daily cleansing is comparatively small; but the area the streets of which are swept from three to five times a week is large, and all the important outlying streets are well cleaned twice a week. If I should name the small sums for which Hamburg, Dresden, Bremen, Dusseldorf, Essen, and other cities obtain remarkably thorough and satisfactory results, I am afraid I should not be believed by American municipal authorities. Everywhere in Germany one notes the perfect organization of these services, and their rapid improvement as the standards of civilized life become more rigorous. The trend in Germany is toward a unified direct municipal service of street-cleansing, sprinkling, and garbage-removal; and, while much diversity of system exists at present, there is no failure in any large German town of that exercise of full municipal authority and responsibility which prescribes what shall be done, and sees that the prescription is carried out.

SUCCESS OF MUNICIPAL GAS-WORKS.

ABOUT two thirds of the larger German cities own and operate gas-works as municipal enterprises. The list of such cities numbers approximately thirty. Public lighting, under modern conditions, has grown to be a very extensive and necessary social service. Nearly a quarter of all the artificial light required by the denizens of many modern European cities is used in streets and public places. Obviously, the cities that reserve the gas-supply as a municipal monopoly are enabled to provide for public lighting at the lowest absolute cost of

manufacture. With the unlimited technical and administrative skill that they control, German cities are in my judgment at a distinct advantage over private corporations in the economical conduct of the gas business. The tendency of municipal ownership is, moreover, toward a more complete street-illumination, and a more thoroughly diffused private use of an article that is at once a civilizing agent and a police protection. As a monopoly enterprise it is of course easy to make the works pay good profits. The cities which are now supplied by private companies will probably, one after another, as franchise periods terminate, assume municipal control.

Meanwhile, most of these cities secure gas for public illumination at greatly reduced prices, and the cost to private consumers is strictly regulated. Munich is the largest of the cities that are supplied by a private company; and I remember at one time observing with satisfaction that the municipal laboratory of that city tests the illuminating power of the gas every day, in order to protect the citizens from an inferior quality. This Munich circumstance fairly illustrates the full municipal supervision that is exercised in Germany over the gas-supply, even when under private ownership. For the benefit of American cities entertaining the absurd delusion that there can be beneficial competition in the gas business, it should be remarked that only one of all the cities of Germany, namely, Frankfort-on-Main, has chartered rival private gas companies; and the price of gas is higher there than anywhere else in the country. Among the cities that own their own gas-works are Berlin, Hamburg, Breslau, Leipsic, Dresden, Cologne, Königsburg, Bremen, Dusseldorf, Nuremberg, Dantzic, Magdeburg, Chemnitz, Barmen, Stettin, and Brunswick. The principal ones supplied by private companies are Munich, Stuttgart, Frankfort-on-Main, Hanover, Strasburg, and Altona.

PUBLIC CONTROL OF ELECTRICAL PLANTS.

In the matter of municipalizing electricity, the German cities have moved somewhat slowly; but the marked tendency is toward the appropriation for the welfare of the community of all advantages and profits to be derived from the distribution of light and power from central electric stations. The governmental operation of telegraph and telephone lines, and the municipal supply of gas for lighting and for motors, would naturally have predisposed the German communities to a public control of such newer services as electric lighting and the electric distribution of power. Berlin is an exception to the rule, perhaps because the feasibility of public control was not so apparent when the Berlin Electrical Company obtained its franchise. The Berlin works were opened in 1886.

Hamburg's municipal plant was ready in 1889, and that city is peculiar among its German contemporaries, in the fact that it leases out both its gas-works and electrical works to be operated for it by a private contractor. Lubeck, Barmen, Königsberg, Metz, Darmstadt, and Duisburg were operating general municipal electrical works before the end of 1890. More recently, the five important cities of Breslau, Cologne, Dusseldorf, Altona, and Cassel have built municipal plants. And within a few months both Dresden and Stuttgart have decided to enter at once upon the same policy. Leipsic, on the other hand, has preferred a different arrangement, and has given a franchise to the Siemens & Halske Company, on terms regarded as specially favorable to the city and the public. The works are to be in operation in 1895, and at the end of the franchise period, which is a long one, they are to become municipal property without cost.

TERMS OF THE BERLIN ELECTRIC-WORKS FRANCHISE.

Although Berlin and Leipsic have given electric-light franchises to private companies, let no reader imagine that the interests of the municipalities and of the citizens were betrayed or left at any point unguarded. As an example of what is considered a suitable form of franchise in Germany, I wish I could quote the entire revised contract made in 1888 between the Berlin city authorities and the Berlin Electric Works Company. It defines the area within which the company may operate. It requires, under heavy penalties, that the area be fully provided with main wires within a brief period specified in the contract. As compensation for permission (not exclusive) to use the streets, it is agreed that the municipal treasury shall receive ten per cent. of the company's gross receipts, and, further, that whenever the company earns a net profit of more than six per cent. on its actual investment of capital, the city treasury shall receive twenty-five per cent. of such excess profits, in addition to its ten per cent. of the gross income. Still further, it is agreed that the company shall provide the magnificent electric illumination of Unter-den-Linden, together with that of the Potsdamer-platz and the Leipziger-strasse, with all expense of maintenance and attendance, at a price so low as to be nominal. Besides this, a special and favorable rate is provided for such further electric street-lighting as the municipality may desire. The city authorities retain the fullest rights of inspection both technical and financial, and all the company's affairs are open

to the knowledge of responsible public officials. The city requires the deposit of 250,000 marks as caution money, and holds the company down to the strictest rules in regard to the laying of wires and the breaking up of street or sidewalk surfaces. The company is required, moreover, to maintain a renewal fund equal to twenty per cent. of its invested capital, and this fund, in the form of Berlin municipal bonds, must be kept on deposit with the city magistrates. Accompanying the agreement was an official schedule of rates that the company was authorized to charge its private patrons. No departures from established rates can be made without consent of the city authorities. Finally, the municipality reserves the right to buy the entire plant and all its appurtenances at any time after October 1, 1895, upon a fair basis of valuation carefully provided for in the contract. The arrangement is the perfection of business lucidity and intelligence. What if New York, Chicago, Boston, and Philadelphia had based all their grants of valuable municipal privileges in the past thirty years upon principles as sound as those that protect German municipal interests in contracts with quasi-public-supply corporations!

It would be interesting, if space allowed, to enter into details regarding German franchises to street-railway companies. It is enough, perhaps, to say that while the business of passenger transit in cities is far more highly developed and profitable here than in Germany, it is under incomparably closer municipal control there than here, and it is customary to pay all they are worth for privileges. Such payments in many cities are in the form of a tax of from 8 to 10 per cent. or more upon gross receipts.

THE HOUSING QUESTION AND THE BERLIN DEATH-RATE.

ALL thorough students of the problems of life in modern cities are now agreed that the housing of the people is the question that requires, from this time forth, the deepest consideration and the boldest and most serious treatment. It is a problem that has many phases. It was the unapproached excellence of their statistical work that enabled the Germans to grasp the social importance and pressing nature of this problem. Circumstances that I have recounted were, and are, causing their cities to grow very rapidly. The temptation was strong upon property-owners to make their tenement hives hold the largest possible swarms. Rear buildings were hastily run up to fill court-room spaces that ought to have been spared for necessary air and light.

German cities count and classify everything with a minuteness that Americans would think absurd. In fact, however, this statistical work is of all things the best service that German municipalities render to their citizens. It was about ten years ago that Berlin began to give the most exhaustive statistical attention to the relation of the housing of the people to their condition of health.

In 1885, in Berlin, it was found that 73,000 persons were living in the condition of families occupying a single room in tenement houses; 382,000 were living in houses (I mean by "house" the distinct apartments of a household) of two rooms; 432,000 occupied houses of three rooms; and 398,000 were quartered in the luxury of houses having at least four rooms. It was found that although the one-room dwellers were only one sixth as numerous as the three-room dwellers, their rate of mortality was about twenty-three times as high, and the actual number of deaths among them was four times as great. Compared with dwellers in houses of more than four rooms, the mortality of the one-room dwellers was at a thirty times greater rate. In a total population at that time of 1,315,000, the 73,000 people who lived in one-room tenement quarters supplied nearly half the entire number of deaths. Their death-rate per thousand for the year was 163.5, or about one sixth their entire number, while the two-room dwellers sustained a death-rate of only 22.5, the three-room dwellers escaped with the marvelously low rate of 7.5, and the well-to-do people, who had four or more rooms for their household, suffered by death only at the rate of 5.4 per thousand of population. We are wont to regard an annual city death-rate of from twenty to twenty-five per thousand of the total population as normal, and satisfactorily small. We have not, however, become accustomed to the minute analysis of such a rate, which might show that the respectable and "normal" average was made up of rates for different classes varying from 3 or 4 per thousand to 200 per thousand. Half the mortality of the Berlin one-room dwellers occurred in households where five or more persons occupied the one apartment.

SOME STATISTICAL REVELATIONS.

RESULTS of the more special inquiries set on foot in connection with the last census of Germany have within a few months become available, and some of them seem to me intensely interesting. For example, it is highly significant of the efficiency of recent municipal measures to find that the process of depopulating the congested districts in the heart of Berlin has fairly begun. Thus, while the city's total population within unchanged municipal boundaries has, in the five years from 1885 to 1890, in-

creased from about 1,300,000 to nearly 1,600, 000, there has been a marked falling off in the five most central districts. In one there has been a loss of 178 families in every thousand. In two others the decline has amounted to 110 families in every thousand, or more than one tenth. Meanwhile the outer districts have grown enormously, two of them doubling their population in the five years. In general it may be said that the growth of Berlin's population has lately been concomitant with a movement from the center toward the suburbs that is proceeding at a higher velocity than the increase in total numbers. The new construction of houses conforms to the strict sanitary regulations to which I have referred, and to the broad and bold projects of the municipality for the control of population density in all the new neighborhoods.

Berlin's population as yet is almost wholly housed in tenement or apartment buildings. About half the inhabitants of the city now live in buildings containing not fewer than one hundred people. Such a system has its advantages and its disadvantages. It makes the distribution of water and gas easier, and renders perfect sewer-connections more feasible. Everything depends upon the question whether or not the building is a proper one of its kind. In 1885 about 120,000 Berliners lived in cellar or basement rooms. The actual number of such subterranean dwellers was about the same in 1890, but the relative number had decreased somewhat. It is the policy of the authorities to discourage or forbid as rapidly as possible the occupancy of unwholesome basements.

ONE-ROOM HOUSEHOLDS IN VARIOUS GERMAN CITIES.

BERLIN is not alone in the employment of measures to promote improved housing. All the other leading German cities have made similar statistical investigations, and most of them are endeavoring to reform the evils that they now fully comprehend. Breslau's population is the most seriously congested in all Germany, the number of one-room families being almost incredible. Including some forty thousand people who enjoy the privilege of a *zubehör* (a small unwarmed, closet-like appurtenance of a room), there were in 1885 not less than 150,000 people, out of a total Breslau population of 287,000, who lived in houses of only one warmable room. It should be remarked that besides the 73,000 Berliners who lived on the absolutely one-room family basis, there were 498,000 who had only one main living room per household, but were lifted somewhat above the status of the 73,000 by possessing the boon of one or two of those precious zubehör. Dresden appears to the visitor so spacious and lovely that it is hard to believe that its working-classes are huddled miserably into one-room tenement apartments. Yet it was true, in 1885, that 110,000 people out of a total Dresden population of 228,000 were living in the condition of families occupying one main room. Fortunately, most of these Dresden people were able to command the advantage of a zubehör, as a possible retreat from the otherwise absolute necessity of being born, eating, sleeping, suffering, and dying within the four walls of one stuffy room. Among the smaller cities, the housing conditions of Magdeburg and Görlitz have been notably bad. Considerably more than half of Magdeburg's population has belonged to the status of the one-room dwellers. Hamburg has housed a full quarter of its population on this dense plan, and its compact neighbor Altona has had to confess a much worse condition of affairs. Leipsic and Munich, the third and fourth cities of Germany, afford strikingly better accommodations for their working-people.

Happily, in all the cities the worst is already past. The conditions revealed in 1885 have led to municipal policies that are making appreciably for a better average quantity and quality of house room.

MUNICIPAL MEASURES AGAINST EPIDEMICS.

BERLIN's sanitary system has been growing more and more perfect for many years. Isolation in crowded tenement-houses being practically impossible, the city has constructed, on the most elaborate scale, great hospitals for the treatment of all forms of epidemic malady. Disinfection stations also, fitted up with huge apparatus for the treatment of clothing, bedding, and various movables from homes where cases of infection have been found, are in constant use. Berlin has no further fear of inability to cope with any hitherto dreaded form of contagious or infectious disease, for its health-appliances are in readiness for the most dire emergency that experience has taught its medical and bacteriological experts to anticipate as possible. It has for many years enjoyed the services and advice of Professor Virchow as a member of the municipal government, and its health department is manned or immediately counseled by a brilliant array of scientific talent. Moreover, in the rank and file of the various sanitary services are many skilled, highly trained officials. Recent tests have shown that Berlin can defy even the cholera; and as for typhus, smallpox, and other dreaded scourges, they seem near the point of total extermination. Even consumption has been marked for governmental conquest by Germany's militant men of science.

Hamburg's sanitary equipment was sadly imperfect up to 1893, the bad water-supply being the grossly vulnerable point. I have already explained how that most grievous fault has been remedied. At the same time, the general service of cleansing and scavenging has been vastly improved; house-to-house sanitary inspection has become thorough; disinfection stations equal to those of Berlin have been established; hospital accommodations and transport facilities have been made well-nigh perfect; the official inspection of food-supplies has been rendered far more complete and rigid, and housing conditions have, as never before, been made a matter of municipal solicitude and regulation. A new era has begun for that great city. Munich, Dresden, Leipsic, and various other German cities, have established similarly complete services for the protection of their people against the epidemic spread of infection.

ABATTOIRS, MARKET-HALLS, AND FOOD INSPECTION.

THE great municipal central slaughter-house and cattle-market, superseding hundreds or thousands of private butcher-shops, and managed in such a way as to protect the public health, is now the rule in the cities of Germany.

It is also the German policy to bring under official oversight so far as possible all articles of ordinary food consumption. To this end the ancient custom of open public market-places is just now being metamorphosed into a marvelous modern system of vast municipal market-halls, erected in the populous quarters of the greater cities, and at a convenient central point in smaller places. Berlin has of late been adding rapidly to the number of its housed markets, and its debt on account of the recent cost of land and buildings for this one purpose has reached about 25,000,000 marks. The value of the total investment is considerably greater than the outstanding bonded indebtedness. It is the policy of the market-hall administration to rent stalls and stands on a purely commercial basis, and to make the business profitable. The markets are on an admirable financial footing, and already help to lighten rather than to increase the burdens of the general city treasury. There is perhaps no function that the German cities would more unanimously consider as belonging within the sphere of good municipal housekeeping than the anxious and aggressive oversight of the food-supply. This is a service that the private family, especially the poor family, cannot possibly secure on its own account. It is therefore proper that the authorities should intervene. The abattoir monopoly is conducted under rules requiring that it shall pay its way, but shall not earn profits.

A MODEL SYSTEM OF POOR-RELIEF.

FOR the care of the poor and the relief of all forms of distress, whether temporary or permanent, the German cities are superbly organized. The policy under which relief is administered has the advantage of being a national and uniform one. Thus, while the practical working of the policy belongs to the municipal administration, there is perfect harmony of method, not only throughout Prussia, but also throughout the whole German empire, with the exception of Bavaria and Alsace-Lorraine. Let us glance at the organization of Berlin, for example, as a typical city. There is a strong central department of the city government with a magistrate at its head, and with competent specialists and general advisers attached to it. But the practical work of relief is administered by about 250 local committees, the city being divided for purposes of poor-relief into that number of districts. Each district committee has attached to it, ex officio, a member of the municipal council, and a physician who has been appointed as the regular city physician for that neighborhood. In addition to these officers, the local committee contains from five to twelve citizens who reside in the district, and who have been appointed on the ground of character and trustworthiness.

To be designated a member of one of these local committees for the relief of the poor is regarded as a mark of respect, and is esteemed a substantial honor. It shows that a man has good standing with his neighbors, and also that he possesses the confidence and regard of the ruling authorities of Berlin. No man would dream of refusing to serve on such a committee. Moreover, refusal would carry with it the penalty of increased taxes, and, under certain circumstances, a suspension of civil and political privileges. No remuneration is attached to these appointments, and the duties connected with them are far from nominal, and may not be shirked. Each district is subdivided so that every citizen-member of the local committee is made responsible for a certain number of families and houses. He is expected to know the condition of his little parish. He is fully authorized to administer prompt relief in pressing cases, and is under obligation to examine thoroughly into all cases which require continued assistance.

Germany has not been satisfied, however, with the establishment of a more satisfactory method of poor-relief than any other country has put into practice. It has seemed to German administrators and philanthropists that the whole modern plan of public alms ought to be superseded by a system of publicly managed insurance against sickness, accidents, permanent invalidism, and the feebleness of old age

— a system aiming at nothing else than the ultimate abolition of poverty. Toward this ideal the Germans have been very bravely and creditably making their way for some years. The business of insurance against sickness has now for a decad or more been carried on by numerous German municipalities, in order to supplement the various relief funds of the trades-unions, and of the volunteer benefit-associations existing in the different wards and localities of all the larger German towns. It has been the policy both of the general government, and also of the municipal authorities, to encourage and protect in every way the formation of these neighborhood and trade societies for insurance against illness or accident. The system as a whole, whether municipal or otherwise, has had very great development throughout Germany; and at length the German empire has added the crowning touch by enacting a law for the insurance of the working-classes against the helplessness of old age.

THE MUNICIPALITY AS THE PEOPLE'S BANKER AND PAWNBROKER.

MUNICIPAL savings-banks are a venerable institution in Germany, and are to be found almost without exception in all the large towns of the empire. In most of the important German towns, the number of depositors in the publicly managed savings-banks considerably exceeds the whole number of families. The rules and methods of municipal savings-banks differ considerably in matters of detail. Most of them pay an interest of about three per cent. The convenience of depositors is served in the larger places by the maintenance of a great number of branch offices scattered through the different wards and neighborhoods. Thus the Berlin savings-bank system has seventy-five or more receiving offices, and the Hamburg system has about forty. Berlin has more than 400,000 depositors, with total deposits at the present time approaching 150,000,000 marks. The Hamburg deposits had passed the 100,000,000 point several years ago, and were rapidly growing in volume. Dresden makes the remarkable showing of nearly 200,000 outstanding depositors' books, with total deposits well exceeding 50,000,000 marks. Leipsic, Magdeburg, Frankfort-on-Main, Hanover, Königsburg, and Dusseldorf carry, in proportion to their population, marvelously large sums in the municipal savings-banks, distributed among very great numbers of depositors. Altona and Bremen show statistics almost incredible; and it would seem that in Aachen (Aix) almost every man, woman, and child in the city holds a bank-book.

Municipal pawnshops (*Leihhaüser*) are quite as general in the German cities as the municipal savings-banks. These, like the savings-banks, are a venerable institution in Germany. Thus the public loan-office of Augsburg dates from the year 1601; Nuremberg's was founded in 1618, and Hamburg's in 1650. Those of Dresden, Munich, Breslau, Frankfort-on-Main, and several smaller cities, are now more than a hundred years old. Berlin's was established just sixty years ago. Leipsic and Cologne began the business early in this century, as did Strasburg and a dozen other cities. On the other hand, a considerable number of the rapidly growing industrial centers of Germany have established municipal pawnshops as a part of the new municipal activities of the last ten or fifteen years. Experience has fully satisfied the German cities as to the feasibility, and the practical benefit to the poor, of an assumption by the municipality itself of the function of loan agent.

PRACTICAL TRAINING AS A MUNICIPAL TASK.

THE conception entertained in Germany of the community's duty toward the child is a broader one than that which prevails in our American cities. Every thoughtful man in the empire has recognized the fact that the industrial and commercial, as well as the military and political, future of Germany depends upon the universality of the best kind of education. The German cities have been trying to make their school systems fit the necessities of their population. They have made elementary education universal and compulsory. They have introduced much manual training and physical culture into their school courses, and are many years in advance of our American cities in adapting the quality of instruction to the practical ends that common-school education ought to serve. The fresh and practical character of popular education in German cities owes very much to the fact that, in addition to the permanent school-officials who supervise the entire educational system of any given municipality, there are numerous local school-boards upon which a great number of competent citizens are asked to serve. This service is required upon principles similar to those which call citizens of character to the work of administering poor-relief. Thus in Berlin there are some thousands of reputable citizens who are responsibly and intimately connected with the city's educational system. Here again we find a safeguard against the mechanical and perfunctory tendencies of routine officialism. I am sure that, so far as elementary education is concerned, our American cities have much to learn from the methods and results attained by German cities.

Albert Shaw.