Municipal Government in Continental Europe. Albert Shaw. New York, The Century Co. 1895. Pp. 505.

The energetic editor of the *Review of Reviews* has embodied in the volume before us the results of much persistent investigation. The facts so industriously collected are sure to be of great value to such of our American municipalities as are beginning to struggle towards the light. Whatever be one's opinion regarding the theory of municipal ownership of street railways, lighting plants, ship canals, etc., there can be no doubt that it is both useful and suggestive to have the facts derived from foreign experience made known to us. There will, moreover, be general agreement that we can profit largely by the varied experiments of European towns in municipal sanitation.

Mr. Shaw's attitude is at times, it must be confessed, one of breathless admiration. The phrases 'bold project,' 'splendid public work,' 'uniformly brilliant results,' punctuate descriptions of undertakings and 'achievements' at which many critics still shake their heads. Can it be, we find ourselves asking, that every municipality has solved its sanitary problems in just the right way? Must it not be admitted that not a few European towns are still in the thick of experiment, still groping towards a solution of difficult problems which beset them, still far from confident that the demands of the situation have been really met?

Paris, under the caption 'the typical modern city,' receives by far the most elaborate treatment at the hands of our author, and there will be little dissent, we fancy, from his explanation in the preface: "I can hardly think that any reader will fail to agree that Paris is the necessary starting point for a description of the modern régime in Continental cities." Here, as in the well-known companion volume, '*Municipal Government in Great Britain*,' already reviewed in this Journal, important questions of sanitation are treated as municipal problems of the first magnitude.

The double service of water supply devised for Paris by M. Belgrand is, perhaps, as Mr. Shaw appears ready to believe, theoretically admirable, but in practice it has not been found to work altogether smoothly. The supply of spring water has been almost always too scanty and the insufficient quantity has been eked out by the water of the polluted Seine. So well recognized is the injurious effect of the Seine water that warning is given through the public press when the river water is to be turned into the pipes, and when water from the Seine has been substituted for more than twenty days in the year the householder has the right to a reduction of rates. The water brought from a distance has, moreover, not proved all that could be desired. An epidemic of typhoid fever, which broke out in Paris in 1894, was traced by the authorities to the supply from the Vanne, in which full confidence had hitherto been placed. We are inclined to demur here at the encomiums bestowed by Mr. Shaw on the double system, and to believe that the day has not come when one may safely predict with him, "In due time * * * the double system will have been carried out in an ideal manner for all Paris." (p. 67.)

On p. 335 the statement occurs, during the admirable discussion of the functions of the German city, that "the quantity of water used by a city is regarded by British sanitary authorities as, in a rough way, a measure of its relative civilization." On this point we believe our author missed an admirable opportunity for pointing a moral, a kind of opportunity which, it must be said, he does not often allow to slip unheeded. The excessive quantity of water 'used' in the United Sates is not exactly an indication of our superiority in things sanitary. The disparity between the quantity of water per capita pumped into the mains in Europe and that supplied in the United States is, indeed, little to our credit, although no one will dispute Mr. Shaw's statement that "an abundant supply of pure water, thoroughly distributed, is a vital consideration for any city." While London gets along with 44 gallons a head daily, Hamburg with 58, Dresden with 22 and Berlin with 17, New York and Boston must have 92 gallons, Chicago 131, Philadelphia 162, Pittsburg 220 and Allegheny 247. It is well known that at least a partial remedy for this condition lies in the introduction of the meter and other devices, and yet this disgraceful waste of water is steadily increasing in most large American municipalities

despite the protests of responsible superintendents and engineers.

The methods of sewage disposal in use on the Continent are discussed in a generally accurate, though non-technical fashion. The Paris and Berlin sewage farms are described in course. The Gennevilliers irrigation fields in the sandy peninsula opposite St. Denis are not, as might perhaps be inferred from Mr. Shaw's statement, directly controlled by the municipality, but the individual occupants regulate at will the amount of sewage turned into the trenches. At Berlin the sewage farm system has achieved its most brilliant success. A great variety of crops is grown upon these farms; on one farm roses are cultivated for the purpose of manufacturing the perfume attar of roses.

The housing of the working classes deservedly receives a good deal of attention, particularly in connection with the author's study of the German cities, where the overcrowding is in some cases almost incredible. In Breslau in 1885 no fewer than 150,000 people out of a population of 287,000 lived in habitations containing only one room that could be warmed. In Berlin in 1890 the average number of inhabitants in a dwelling house (Grundstück) was 73 as against an average of 67 in 1885. The point is taken, however, that the German municipal authorities have the facts of the case well in hand and are trying to remedy the evil.

Our author notes here and there various interesting facts relating to the general sanitary oversight and organization in European towns. The control of food supplies, the supervision of abattoirs and the disinfection service all receive merited attention. Where so much is included it would be ungracious to remark the omission of some interesting and important topics.

The chapter on *Hamburg and its Sanitary Reforms* takes careful note of the wave of reform that has lately swept over the great port. The dearly-bought lesson of the cholera outbreak of 1892–'93 has not been thrown away, and the energetic administration of Dr. Dunbar and his staff of expert assistants has not only made a brilliant success of the attempt to purify the Elbe water, but has also wrought great improvement in the general sanitary condition of the city. The story is told by Mr. Shaw in his best vein. We trust, however, that the following statement: "In July, 1893, the imperial health authorities at Berlin issued a warning to the municipal governments of the country not to supply their citizens with a drinking water containing more than 100 *cholera* germs to the cubic centimeter" (p. 398), will not be taken as a literal transcript of the German decree. Mr. Shaw should have been told that all germs netted in the Elbe were not cholera germs.

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SOCIETIES AND ACADEMIES.

TORREY BOTANICAL CLUB, JANUARY 27, 1897.

THE scientific program was as follows:

Dr. H. H. Rusby, 'Remarks on some Solanaceæ.'

Mr. A. A. Tyler, 'The Origin and Functions of Stipules.'

Dr. J. K. Small, '*Aster gracilis* Nuttall.'

Mr. George V. Nash, 'New and Noteworthy American Grasses.'

Dr. Rusby exhibited a number of Solanaceous plants and remarked upon their relationships. It was pointed out that the general appearance and chemical and physiological characteristics of these plants frequently fail to indicate their structural affinities. Cestrum and Sessea, Atropa and Datura were cited as illustrations of the separation of otherwise naturally related groups through their possession respectively of baccate and capsular fruits. Nicotiana was referred to as connecting those tribes having a radical symmetry with the tribe Salpiglossidæ, having a bilateral symmetry and thus connecting the family with the Labiales. The Androcera and Andropeda sections of the genus *Solanum* were instances of the appearance of this bilateral symmetry in a widely separated part of the family where radial symmetry is the otherwise invariable rule.

Dr. Britton discussed the subject and remarked upon this instance of development of two divisions of a group along different lines, in this case through baccate and capsular fruits. He cited similar parallelisms in other families tending to produce different resulting characters, as in *Capparidaceæ*, and remarked that an indication of the lines along which these genera