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A REFERENCE HANDBOOK

OF

THE MEDICAL SCIENCES.

Aachen.  
Aachen.

**AACHEN** (Aix-la-Chapelle, Fr.), renowned for its hot sulphur springs, is an ancient Prussian town of 100,000 inhabitants, easily reached from Paris, Brussels, or Cologne, being only forty-four miles distant from the latter city. In its ancient and renowned cathedral "are the famous relics of Charles the Great, who has been honored as the discoverer of the springs and founder of the town; but thermal waters at Aachen were certainly known to the Romans," whose predilection for baths and hot springs is well known, as their elaborate remains at Bath, England, and elsewhere testify. The springs of Aachen were also visited in A.D. 756 by King Pepin the Short. The town is at an elevation of about 565 feet above sea level, is built on sandy soil, and is fairly sheltered by hills. Although the town itself has become entirely modern, its surroundings are very attractive. The climate is moderately moist. The average temperature is 54° F., and the number of rainy days 110.

The entire city is underlaid with hot springs, and within a distance of 1,316 metres the water issues from ten springs. The principal ones are the Kaiserquelle (the strongest), with a temperature of 131° F.; the Quirinaquelle, 122° F.; the Rosenquelle, 117.5° F.; and the Corneliaquelle, 114° F. The waters of the various springs are very similar in mineral constituents, differing in temperature and the amount of sulphur they contain. The Elisenbrunnen, the one most used for drinking purposes, derives its water from the Kaiserquelle.

At the larger bath establishments, which are elegantly fitted up and arranged, there are vapor baths, inhalation chambers for bronchial and laryngeal affections, and other rooms set apart for the various hydrotherapeutic processes. "The great advantage of Aix-la-Chapelle," says Dr. Baruch, "is the fact that nearly all the baths are situated in five hotels, and there is no necessity, as at Aix-les-Bains, for the patients to be carried in sedan chairs from the springs to the hotels." In the town is a Zander Institute, with Dr. Zander's medico-mechanical appliances for Swedish gymnastics. Although one can be treated at Aachen at all times, the two seasons are the summer, from April 15 to October 15, and the winter, from November to April. The accommodations are very good, and one can live in the bath establishments themselves, as has been said.

In 10,000 parts of water, the Kaiserquelle, according to the analysis of J. von Liebig, contains:

Sodium chloride . . . . .	26.161
Sodium bromide . . . . .	0.036
Sodium iodide . . . . .	0.005
Sodium sulphide . . . . .	0.095
Sodium sulphate . . . . .	2.836
Potassium sulphate . . . . .	1.527
Sodium carbonate . . . . .	6.449
Lithium carbonate . . . . .	0.029
Magnesium carbonate . . . . .	0.506
Calcium carbonate . . . . .	1.579
Strontium carbonate . . . . .	0.002
Ferrous carbonate . . . . .	0.005
Silica hydrate . . . . .	0.661
Organic matter . . . . .	0.769
Total . . . . .	40.750
Carbonic oxide (free and partially free) . . . . .	5.000
Traces of fluorine, boron, and arsenic. There is probably an organic sulphide (allyl) present in minute quantity.	

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The action of the Aachen thermal waters, as indeed of all thermal waters, is to increase tissue metamorphosis and thus to promote absorption of chronic inflammatory products, as in chronic rheumatism and gout; but, as Weber wisely remarks, "hot baths and hot-water drinking are likewise beneficial in these conditions, and it is not certain that the presence of small quantities of sulphur adds much to the effect of hot water"; "the same," he adds, "may be said with regard to some chronic skin diseases." In another place the same writer remarks that in other cases besides those of syphilis the reputation of the Spa is due not so much to the water as to the energetic hydrotherapeutic measures, special exercises, massage, etc., which are employed there.

On account of the chloride of sodium which they contain the waters are used in catarrhal conditions of the stomach and alimentary canal and of the bronchi. There are inhalation chambers, as has been stated above, for bronchial and laryngeal affections. The waters are also used in various affections of the abdominal viscera: in sluggish action of the bowels and stagnation in branches of the portal vein, with the resulting dyspeptic troubles; in congestion of the pelvic organs and hemorrhoidal vessels; and in enlargement of the liver. Chronic skin diseases, such as eczema and psoriasis, are treated at Aachen with more or less success, "the results obtained," as one author remarks, "doubtless partly due to the medicinal treatment." Besides chronic skin diseases, the following affections constitute the major part of those treated at Aachen: chronic rheumatism, gout, and the stiffness of joints resulting from these affections; metallic poisoning; and syphilis. Cases of the latter disease by far outnumber all the rest, for out of the 20,000 annual visitors at the Spa, 14,000 are said to come there for syphilitic treatment. "The value of these baths in this disease," says Baruch, "has produced such an afflux of syphilitics that the town has obtained quite an unenviable reputation, which prevents, it is said, purely gouty, rheumatic, and other patients from frequenting it." Weber thinks that the reputation of Aix-la-Chapelle in syphilis has been due in great part to the ordinary medicinal treatment employed there and to the attention paid to the subject by the local doctors.

Be this as it may, the success of the Aix method of treating syphilis is undoubted, and it will be of interest to repeat here the detailed account of that method which Dr. E. C. Wendt gave in the first edition of this **HANDBOOK**. It is, in all essential respects, as follows:—

Dr. Brandis, one of the experienced physicians of the Spa, insists on three points:

1. The body must always be adequately prepared for the absorption of the mercury, and the gray ointment must always be used carefully and in sufficient quantity. The patient is directed to take a warm bath of half an hour's duration, at a temperature of 95° F., so as to be prepared for the subsequent inunction. From this rule it may be necessary to deviate for various reasons. A very frequent cause which compels us to adopt other measures first is the fact that mercurialism, the result of previous incautiously applied mercurial treatment, is