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THE PHYSICAL LABORATORIES OF EUROPE.

At a meeting of the physical section of the Brooklyn Institute of Arts and Sciences, held on Oct. 28, Dr. W. Le Conte Stevens gave a very interesting lecture on the "Physical Laboratories of Europe." Dr. Stevens, who has accepted the chair of physics in the Rensselaer Polytechnic Institute, of Troy, has just returned from a two years' course of study under Kohlrausch and other eminent German physicists. Dr. Stevens considers the laboratories of Strassburg and Zurich the most perfect in Europe. The University of Strassburg offers particular advantages to students desiring to make original investigations, many rooms in the new and beautiful laboratory building being devoted to this purpose, each student having a room to himself. One peculiarity of the Strassburg laboratory is that Dr. Kohlrausch as well as the other professors live in apartments in the laboratory.

The new laboratory at Zurich is equipped in an unsurpassed manner. The building is located on a hillside, so that it receives little dust and is far enough away from the road to prevent any jarring from traffic. Special rooms are devoted to different kinds of work, the apparatus in many rooms being practically fixtures. One entire section of the building is devoted to electrical work; not a particle of iron enters into its construction, so that accurate work in magnetism and electricity can be carried on in perfect assurance that there is no disturbing influence. Perhaps the most interesting feature of the whole building is the underground rooms for conducting experiments in heat, etc., which requires a constant temperature. These rooms are connected with the main building by a tunnel and are twenty feet below the surface of the ground. There are three rooms opening from an anteroom, all being circular in form. At the conclusion of the lecture Professor Hooper, director of the Brooklyn Institute, tendered Dr. Stevens a reception at the Hamilton Club, which was attended by a number of his Brooklyn friends.

GROWTH OF THE PRATT INSTITUTE.

We have from time to time noted the progress of the institution of learning in Brooklyn founded by and named after the late Charles Pratt. At no time in its history has this institution been so prosperous as it is at present. The registration of pupils for 1891-1892 as given below will give a fair idea of the number of students and their distribution in the various departments. Although this is a young institution, it is thoroughly equipped in all departments and its facilities are constantly increasing. The number of students in the various departments is steadily on the increase. The registration for the year 1891-1892 is as follows:

	Day.	Evening.	Total.
High school.....	144	—	144
Industrial and fine arts.....	559	333	892
Domestic art and science.....	1,388	552	1,940
Science and technology.....	80	232	312
Music department.....	89	244	333
Department of commerce.....	133	293	426
Library classes.....	43	—	43
	2,436	1,654	4,090
Members of the library.....			16,500

Mr. Pratt believed that the eye and the hand must be trained together to secure symmetrical development, and it is now very generally recognized that manual training is an important and necessary adjunct to the educational methods of the common and high schools and colleges.

An additional building, measuring 136 by 160 feet, is to be constructed during the present year; this will contain the library and the valuable technical museum. The playgrounds of the institute now aggregate nearly two hundred thousand square feet. A number of new courses and novel features have been added since the SCIENTIFIC AMERICAN of Oct. 6, 1888, gave a complete pen and pencil sketch of this institution. Classes of physical culture, hygiene, home nursing, and cooking for the sick have been formed; laundry work and all kinds of plain and fancy cooking receive much attention; while the department of science and technology has now opened evening classes which give a full technical education. In the basement of the building occupied by the department of mechanic arts there are special steam and electrical laboratories fitted with engines, dynamos and testing instruments. The library now numbers 34,000 volumes and is increasing rapidly. The institute as a whole has entered upon an era of prosperity which is the fulfillment of the wishes and expectations of its noble founder.

Metalizing Cloth.

A Mons. Moricourt has invented a process for metalizing textile fabrics, whereby it is claimed that they are rendered proof against the attacks of microbes. The materials, wool, flannel, calico, etc., are immersed for about an hour in an ebullient bath composed of 4 kilogrammes of sulphate of copper, 1 kilogramme of sulphuric acid, and 1,000 liters of water. On removal from the fluid the fabric is calendered and dried. The finish thus obtained will, it is said, bear two or three washings before it is again requisite to subject the cloth to the metalizing operation.

Not the Best Way to Sell a Patent.

As soon as an invention is patented, the fact is published throughout the length and breadth of the land and then the patentee begins to receive circulars and letters from agents of all kinds, suggesting to the inventor that they possess unequalled facilities for selling his patent. In some cases these persons state that they have a customer willing to pay several hundred dollars for the patent, and warning the patentee not to negotiate with others till he hears from them again. This conveys the impression that they have a *bona fide* offer, and, more even than this, that a greater sum may be realized from the *anxious* purchaser. But before the letter closes, it states that a power of attorney and a fee of from \$5 to \$25 must be sent by early mail to pay for this preliminary negotiation, and that the balance of their commission will be taken out of the purchase money. By this mode, a number of persons in different parts of the country live on the credulity of patentees, without rendering them the least equivalent for their money. They get from the inventor a power of attorney and a small fee, and that is the last he hears from his agent. Tired of waiting for the mail to bring him the money he so confidently expects, he, after a while, writes to know how the sale is progressing. He receives no reply—he waits—then writes again; still no answer. Then he writes to us, and states what he has done, incloses the correspondence, and wishes us to investigate the matter, and tell him if he has been swindled. He asks if we know the parties, if they are reliable, etc. Sometimes a circular is inclosed, in which our names are used as references, etc.

Now we do not pronounce all dealers in patents to be swindlers; but when such parties refer to us, it is without our authority, and they should be looked upon with suspicion. We advise every patentee to be on his guard against granting a power of attorney to sell his patent to any one whom he does not know, and under no circumstances to pay in advance any sum of money, however small, under the idea that this preliminary payment is necessary to the negotiation of the sale.

Prospective Car Building on the North Pacific Coast.

The Puget Sound *Lumberman* claims to be in possession of data leading to the belief that several of the larger car-building plants in the United States will soon be located on the sound. A prominent Tacoma lumberman lately made the declaration that he firmly believed that within the next ten years nearly all the box, flat and stock cars used in the country will be manufactured on the north Pacific coast. The hindrances to the planting of the industry in that region have been a lack of fuel and material for making wheels; but recently Eastern capitalists and railway men have examined the resources of the country in these respects, and can now see their way to obtain such supplies. The fuel question has been solved by the Wilkeson Coke Company, which is now turning out as fine coke as can be obtained anywhere. The American Foundry Company at Tacoma, by mixing scrap iron with British Columbia ore, has demonstrated what can be done on the coast in the matter of making car wheels, for car builders declare that the wheels thus turned out are as good as any made in the country. Furthermore, iron ore can be obtained in Washington that is equal or superior to that mined in British Columbia. Such ore abounds in vast deposits in the Ce-Elum range, owned by the Pacific Improvement Company, a corporation composed of Scotch capitalists. It is probable that the company will erect a large blast furnace within the coming year.

Tropisin.

A new local anæsthetic has recently been isolated by Giesel from the leaves of the small-leaved cocoa plant of Java. Liebermann, so says the *Medical Record*, has proved that this base is benzoyl ψ tropeine, which bears no relation to the cocaine group, but is chemically closely related to atropine. It is called "tropisin" for brevity. Professor Schweigger, of Berlin, after several months' experience with tropisin in eye surgery, reports that:

1. A three per cent solution produces complete corneal anæsthesia more rapidly than cocaine. Iridectomy could be done painlessly two minutes after putting three drops into the eye.
 2. Anæsthesia lasts from three to six minutes for each installation, and no further prolongation can be produced save by a fresh dose.
 3. Mydriasis is absent, or but slight.
 4. Ischæmia never occurs; but sometimes there is a passing slight hyperæmia and a little smarting unless normal saline solution be used as a solvent.
 5. No injurious symptoms were ever observed.
 6. In removal of foreign bodies, tropisin seems, from its quicker action, far preferable to cocaine.
- Dr. Silex, assistant in the Polyclinic, has obtained similar results.