runs towards the north-east; in all this course it is impelled by the rotation of the earth with a force corresponding to a fall of from nine to ten feet, and rises from left to right about 1·2 feet.

From the Bay of New York the Gulf Stream runs eastward towards the shores of Europe, and, throughout the passage, obeys the impulse of the force of rotation, which raises it from left to right by a total elevation of about one foot. Having reached the neighbourhood of Europe, the current divides into two nearly equal branches, one of which, under the influence of the diminished force of the action of the earth's rotation, runs in a south-easterly direction towards the coast of Africa, with an elevation from left to right. The other branch, meanwhile, is forced to skirt the coasts of Great Britain, taking a more northerly direction on account of the resistance it meets with from the land, the action of the force of rotation causing it to advance in its northerly course with an elevation from left to right facing the land of one and-a-half feet. If we try to estimate the influence which the earth's rotation exercises upon the Gulf Stream from St. Augustine to the 60th degree of N. latitude, we find that the force is nearly the same as that which would act upon the current, if, between these two points, a distance of about 950 miles, the Atlantic showed a difference of level of twenty-five feet. When the Gulf Stream has passed the northern extremity of Scotland, the resistance which obliged it to take a more northerly direction disappears, and, from this time, the principal current inclines more to the east towards the coast of Norway, which it then skirts to the north-east, sloping towards the land on account of the earth's rotation. Another branch of the Gulf Stream is arrested by Iceland in its course to the north, and turned to the north-west, striving against the earth's rotation, which elevates it towards the south and south-west coast of the island just mentioned, it ought consequently to present a slope towards the north-west as far as the polar current.

(*To be continued.*)

SCIENCE IN GERMANY*

IN his address at the opening of the present University Session at Berlin, the out-going Rector quoted some interesting figures showing the effect of the recent war on the activity of the University. In October 1870 there matriculated in all the faculties 1,236 students, while the number of entries for the winter session of 1869 was 2,421. Of the 1,236 students who entered their names in October, only 904 continued their attendance throughout the winter. The actual number of medical students last winter was 173, while in the previous winter session they amounted to 550. The falling off in numbers extended about equally to all the four faculties; but it appears that none of the theological students who entered at the beginning of the session were required to break off their studies. The courses of lectures, public and private, that were announced amounted to 366, and of these 271 actually came off. Forty students took their degrees—8 in jurisprudence, 19 in medicine, and 13 in philosophy. The number of deaths, so far as was ascertained, amounted to 32. The University seems now to have returned to its full activity, to judge from the crowded state of many of the class-rooms. A few of the students are to be seen wearing the ribbon of the Iron Cross.

Two ladies from America have applied to the Berlin University authorities for permission to attend the medical classes. One lady, a Russian, is studying chemistry in Prof. Hofmann's laboratory. An American lady has been studying medicine at Bres'au, and has sent to an American newspaper a glowing account of her friendly reception at the Silesian University. Another pioneer of the same sex is studying engineering at the Polytechnic School of Aix-la-Chapelle; and two ladies recently joined the University of Prague, where they are studying under the professor of history. During the past summer a solitary American lady, M.D., attended the clinics at the Vienna General Hospital, and appeared to suffer, to the full extent, the inconveniences of being in so considerable a minority.

The autumn season on the Continent, as in England, is marked by the occurrence of various scientific gatherings. At several of these, Prof. Virchow has been receiving invitations, which the Berlin newspapers have chronicled from time to time. At the Assembly of German Naturalists and Physicians, held at Rostock, his speech was the great event of the meeting. During the Bologna Conference of Archæologists, he was entertained at a banquet by the Italian dignitaries and men of science; and at a scientific assembly held in Rome, the audience rose to their feet to welcome the celebrated Berlin professor, who made them a speech in French. In his address to the Rostock Conference, Virchow made some remarks upon the nature of annual scientific gatherings, of which he himself is an assiduous frequenter. "It was a matter of encouragement to me," he said, "when I read in the proceedings of the recent meeting of the British Association, in the opening address of its renowned President, Sir William Thomson, that Brewster, in his letter by which he called the Association into existence, expressly stated that he was led to this step from considering the great and beneficent results that the German Naturalists' Association (*Naturforscherversammlung*) had achieved during its nine years' previous activity. We were the first to advance among all nations; the English followed, and the number of these associations has gradually increased. They have, by degrees, extended into every possible province of human activity, and we have thereby become accustomed, by the co-operation of the many, to define more clearly the common objects at which the whole has to aim." And again, speaking of the results of these meetings, he says: "Not only the pleasures of fellowship, which are inseparable from a great congress of individuals; not only the amenities of personal acquaintance, which cannot be too highly valued; the forming of friendly ties, where perhaps, under other circumstances, harsh and even bitter opposition would have sprung up; the reconciling of many controversial antagonisms through personal intercourse—all this is the smaller result. There is yet a greater—the communication of knowledge, the explanation of methods, the clearing up of the directions in which research should be undertaken—and these are things which can be nowise better told than by word of mouth." The main subject of Professor Virchow's address was the part that science would have to play in the new national life of Germany. Their work, he held, was to introduce into the popular life of the nation the great and all-pervading idea of evolution. Space will not permit even to give an abstract of his views.

Among the books that have issued from the German press within the last month or two are—the new edition of Virchow's "Cellular Pathology," much improved and enlarged; Professor Traube's "Contributions to Physiology and Pathology," in two bulky volumes, one containing experimental and the other clinical researches; a new instalment (the fifth) of Stricker's "Handbuch;" a treatise on Leuchæmia, by Professor Mosler of Greifswald; and an elaborate work with plates, by Barkow of Breslau, on "Dilatations and Tortuosities of the Blood-vessels," with special reference to aneurism of the aorta in its various sites.

* From a Correspondent of the *British Medical Journal*.

SCIENTIFIC SERIALS

THE fourth number of the *Zeitschrift für Ethnologie* for the present year begins with Dr. A. Erman's concluding part of his "Ethnological Observations on the coasts of Behring's Sea." He draws attention to the bold and often successful surgical treatment which was found to have been practised by the Aleutians when they were first visited by Europeans. The influence exerted by the Russians on these primitive people has tended to make them conceal, or even gradually relinquish the practice of many of their old national habits, and, amongst other usages, they have almost wholly given up their heroic surgical operations. Dr. Erman met, however, with one skilled Aleutian operator, from whom he learned many particulars in regard to the native practice of his art. It would appear that their variously-sized lancets are formed of finely-polished and sharply-edged flakes of obsidian. With these instruments bleeding in the leg as well as the arm is performed, and incisions made in various parts of the body, including the thoracic walls, for the purpose of removing blood or pus, in cases of their effusion into the cavity of the pleura, or in pulmonary disease. But although we are told that this practice is not found to be attended with any dangerous results, we are not informed how the injurious effect of any possible admission of air into the chest is guarded against. The Aleutians exhibit great dexterity in removing various parts of the bodies of whales, and of sea-lions and other seals which they have killed, as, for instance, the mucous membrane of the neck, without in any way injuring the contiguous parts. And they show wonderful skill in fabricating from such membranes thoroughly water-proof and highly elastic coverings for the feet and legs, as well as those invaluable rowing dresses known as "Kamlejkes," which, when drawn over the head and upper part of the body and fastened