

## SCIENCE:

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TWO YEARS AGO the Connecticut Legislature very commendably appropriated five thousand dollars for the investigation of the pollution of streams, intrusting the work to the State Board of Health. The results of the investigations, carried on by Dr. S. W. Williston, have shown the rapid and alarming increase of river-contamination, a half-dozen of the rivers already being very greatly or excessively polluted. The Naugatuck, for instance, — a stream upon which are situated many of the large metal-manufactories of the State, and with a summer-weather flow of about ten million cubic feet at its mouth, — receives not less than twenty-five hundred tons of manufactory refuse annually, in addition to the sewage of about seventeen thousand people. At the last session of the Legislature a like appropriation was intrusted to the Board of Health for the investigation of the potable waters of the State, which investigation will be carried on, under the direction of the secretary, Dr. C. A. Lindsley, by Drs. H. E. Smith, T. G. Lee, and S. W. Williston, of the Medical Department of Yale University, and will include the monthly examination of potable waters, chemically, bacteriologically, and microscopically, on essentially the same plan as that so extensively and thoroughly pursued by Professors Drown and Sedgwick for the Massachusetts Board of Health. The results of the investigations cannot help but be valuable, as hitherto scarcely any attention has been given to the subject in the State, and many of the waters used for domestic purposes are at times confessedly bad.

## DR. H. MEYER ON STANLEY'S EXPEDITION.

DR. H. MEYER, at a recent meeting of the Berlin Geographical Society, delivered an interesting lecture on Stanley's expedition. We learn from this experienced traveller that the region traversed by Stanley was, up to this date, totally unknown. From his letter the general outlines of its topography have become known. The upper course of the Aruvimi is not the Nepoko, as Junker was inclined to think, but its source is in the Speke Mountains, northwest of Lake Albert Nyanza, in which the source of the Welle-Obangi is also situated. The length of the river is approximately 1,000 miles. Whether the Muta Nzige belongs to its system or not, is doubtful. Stanley assumes that the latter belongs to the Kongo basin, as the southern affluent of the Albert Nyanza, the Semliki or Kakibi, is said not to come from the Muta Nzige, but to rise in the mountains of Ruwenzori, which were discovered by Stanley, and are described as a high snow-covered mountain about fifty miles south of Lake Albert. It may be that it is the same as the Gambaragara Mountains. If Stanley's observations, according to which the level of the Muta Nzige is lower than that of the Victoria Nyanza, be correct, it cannot belong to the system of that lake.

From the Kongo to the Albert Nyanza the country rises gradually, and attains an altitude of 5,200 feet close to the lake. There is a sudden fall to the lake, which is 2,900 feet high; and the high range of mountains which is seen on the west side of the lake is nothing else than the eastern slope of this plateau. Stanley found the level of the Albert Nyanza considerably lower than at his first visit, and expresses his opinion that this fact is a consequence of the rapid erosion of the Nile at Wadelai, and the deepening of the outlet of the lake. It is more probable that this lowering of the lake-level is due to a change of climate, as all the lakes of Central Africa show the same phenomenon.

Stanley describes the whole region between the Kongo and the Albert Nyanza as covered with an enormous forest 250,000 square miles in extent. This does not appear probable, as Stanley travelled most of the time close to a great river, and met with open country as soon as he left its course. On his former journeys he has also concluded erroneously, from the appearance of the banks of the Kongo, that the whole region is covered with dense forests, while it is to a great extent open land.

A description of the vegetation of this country from so excellent an observer as Dr. Junker, who reached the Nepoko coming from the north in 1882, is of interest. He says, "Close to the river, on the walls of its deep valley, and frequently beyond the upper edge of the latter, dense forests are found. Scarcely a ray of the sun penetrates these dark masses of trees. The woods are sometimes as wide as one or two miles. As every small river has a rim of such forests, and the land is drained by a great number of brooks and rivers, these forests, notwithstanding their narrowness, resemble the extensive tropical woods of South America."

If we compare this description with Livingstone's, Grenfell's, Delcommune's, Wissmann's, and other reports on the forests of Central Africa, we will be safe in assuming, instead of Stanley's 250,000 square miles of forest, about 25,000 square miles.

The tribes inhabiting the region between the Kongo and Nepoko construct conical huts. East of the Nepoko, Stanley found the Mabode, who build square houses, and who were first described by Junker. Farther east he met one hundred and fifty villages of dwarfs, who are called Wambutti. He compares them to the Tikki Tikki or Akka, who live a little farther north. Junker met them among the Mabode on the Nepoko. They were called Achooa.

Stanley's reports regarding the state of affairs in Emin's province are very meagre. He confirms Emin's former report, that there are fourteen stations which are garrisoned by two battalions of regulars, who have 1,390 guns. Besides the regulars, Emin has irregular soldiers, sailors, tradesmen, merchants, and servants, — about 8,000 all told. Besides these, there are 10,000 women and children.

Evidently it is not the object of Stanley to take Emin home from his province; but, on the contrary, he intends to enable him to hold his own, and to enlarge his influence, by supplying him with