

steam engines. The first two congresses are already organized, having held previous meetings. The two latter will hold their first meetings at Paris.

AN International Exposition of Horticulture will be held at St. Petersburg from the 17th to the 27th of May, 1899.

THE Executive Committee of the National Pure Food and Drug Congress have issued a call for a meeting at Washington on January 18, 19, 20 and 21, 1899.

THE annual meeting of the Nebraska Academy of Science will be held on November 25th and 26th, in the Botanical Lecture Room of the University of Nebraska, in Lincoln. Dr. H. B. Ward is the President, and Professor G. D. Swezey, Secretary.

A CONFERENCE of teachers of chemistry will be held at the University of Michigan, December 27, 1898. This is the sixth of these annual conferences of teachers of chemistry in high schools and colleges. The meetings will continue for two days, the subjects being confined to educational methods and matters. Several reports of committees will be presented for discussion. The program will be sent on request by any member of the Committee of Arrangements, namely: Professor Nef, of the University of Chicago; P. H. Seymour, late of the Detroit high school, and Professor Prescott, of the University of Michigan, Chairman.

THE first evening promenade was held at the Royal Botanic Gardens, Regent's Park, November 2d. The string band of the First Life Guards performed a selection of music in the large conservatory, which was illuminated with fairy lamps, and in which there was also a fine show of chrysanthemums. The new club rooms, which will be formally opened shortly, were freely used by the Fellows and members of the Society.

IT appears from the final report of the Congress of the Sanitary Institute, held in Birmingham in September, that the number of tickets issued exceeded that of any previous year, and the attendances were in like proportion. The total number of tickets issued was 1,979, as compared with 1,531 at Leeds last year, 1,225 at Newcastle in 1896, and 1,214 in Liverpool in

1895. The number of visitors to the Health Exhibition this year was 85,212, and was 10,000 greater than had been previously attained.

THERE seems to be a misunderstanding in the medical journals in regard to the usual attitude of men of science toward patents. Referring to the Behring patent of antitoxin in America, a writer in the Berliner *Tageblatt* asked what would have become of the ophthalmoscope if Helmholtz had made a claim to patent his invention. Behring replied that Helmholtz could not do this, because there were at that time no patent laws. The New York *Medical Record* says that Behring traduces the memory of Helmholtz, probably not being aware that it thereby traduces the names of many eminent men of science, including Lord Kelvin and Professor Rowland, who each hold dozens of patents. The question of patents by scientific men is one that deserves consideration and discussion. There is certainly no reason why men of science should not profit from their inventions, but there is a real danger if they undertake to do so lest they may be diverted from scientific to purely technical work. But it is nonsense to speak as the *Medical Record* does of the 'misdeeds' and 'depravity' of Professor Behring. Is not the *Medical Record* copyrighted?

MRS. MILLS, the 'Christian scientist,' who treated the late Harold Frederick in his interest, has been held by a verdict of the Coroner's jury on a charge of manslaughter.

UNIVERSITY AND EDUCATIONAL NEWS.

ACCORDING to the twenty-fifth quarterly statement of the President of the University of Chicago, there were 1,421 students in attendance during the summer quarter, of whom 591 were in the graduate schools. The assets of the University are valued at about \$9,000,000. The income was \$706,973 and the expenditures \$678,399. An annual report of the University will be published hereafter in the autumn, and the first report to be issued during the present month will contain a *résumé* of the work of the University since its foundation.

THE College for Teachers recently established under the University of Chicago, through a gift of Mrs. Emmons Blaine of \$5,000 a year for five

years, is not intended to prepare teachers for their profession. The plan is to offer an opportunity to do college work to the 5,000 teachers or more of Chicago. The College will not concern itself with methods of instruction, but only with the subject-matter.

MT. HOLYOKE COLLEGE has received \$100,000, bequeathed some time since by the will of the late Charles P. Wilder; one-half of this sum is to be spent in the support and extension of scientific work.

THE new buildings of the medical department of the University of California, built by the State on land presented by the late Adolf Sutro, were formally opened on October 22d. The site, though somewhat remote from the present center of the city of San Francisco, commands a magnificent view, and the laboratories and lecture rooms are excellently equipped.

WE noted last week that eleven architects had been selected in the final competition for plans for the buildings of the University of California instituted by Mrs. Hearst. It appears further that the traveling expenses of these architects are to be paid by Mrs. Hearst in order that they may proceed to California and spend six months in adjusting their plans to the magnificent site of the University.

A CHAIR of physical geography, not yet filled, has been established in the University of Zurich.

THE University of Paris has been given anonymously a fund to allow a French student to study mathematics in Germany.

AT Magdalen College, Oxford, Mr. Horace Middleton and Mr. Harold Hilton have been given fellowships, the former in reference to work in physiology and zoology, the latter with reference to work in mathematics.

M. BOIRAC has been appointed professor of philosophy at Dijon.

THE Council of the University of Paris has nominated for lecturer in experimental psychology as its first choice M. Pierre Janet and as its second choice M. Georges Dumas.

DR. R. LORENZ, electrochemistry, and Dr. K. Keller, zoology, have been made full professors in the University of Zurich.

DISCUSSION AND CORRESPONDENCE.

THE 'BIPOLARITY' HYPOTHESIS.

I HAVE read with interest Dr. Ortmann's remarks in *SCIENCE* for October 14th on Sir John Murray's views as to the distribution of marine faunas. I agree with Dr. Ortmann that in most cases the supposed 'bipolarity' does not exist, and I may refer him to some remarks of my own published last June, which show very much the same for the Tunicata as he does for the Crustacea. The statements in question appear in a paper on Simple Ascidians from Puget Sound (*Trans. Biol. Soc., Liverpool, Vol. XII., p. 248*), in which, while pointing out the close similarity between the Tunicata faunas of the west coast of Europe and North America and their possible relation to a northern circumpolar fauna, I criticised Murray's 'bipolar' lists and gave as my opinion that "the distribution of Tunicata as a whole does not lend any support to the bipolar hypothesis." I further stated that "this matter must be settled by specialists in each group of animals stating their opinions as to the genetic affinities of the northern and southern faunas in their own groups, quite apart from and uninfluenced by general lists containing other groups." I am glad to see that this is what Dr. Ortmann and others are now doing.

I would add: There is one thing more we need, and here I am sure Sir John Murray and other naturalists will concur, and that is, more facts, further investigations. There is every prospect now, with the various Antarctic expeditions in the field or proposed, that we shall shortly be in possession of more information from the far South. It is to be hoped that American and British naturalists will see to it that our own polar seas are more thoroughly explored in the near future, both by dredge and tow-net. In advocating Antarctic expeditions we must not forget how much still remains to be done within the Arctic Circle.

W. A. HERDMAN.

UNIVERSITY COLLEGE, LIVERPOOL,
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PERIDINIUM AND THE 'RED WATER' IN NARAGANSETT BAY.

DURING the last two months the inhabitants of Rhode Island witnessed the following remark-