

### EASTERN ASSOCIATION OF PHYSICS TEACHERS.

The fifty-ninth meeting of this association was held Saturday, June 3, at Groton School, Groton, Mass. It was called to order at 11 A. M. by President Griswold, who introduced the Rev. Sharrard Billings, who welcomed the Association to the school. He spoke complimentary about the work it was doing and the influence it could and does exert on science teaching in secondary schools.

Mr. Le Sourd, chairman of the committee on new apparatus, described some new apparatus from the Central Scientific Company of Chicago. He had on exhibition an Ames and Bliss wave apparatus and also a set of Gamot bells, consisting of two octaves of flat metal rods so mounted as to produce clear and prolonged tones. Mr. Hathway from the committee on magazine literature presented a report mentioning the principal physics articles in some of the leading magazines. The committee on current events followed with an interesting account of some of the new and interesting occurrences which have recently taken place in the physics world.

Mr. S. Warren Sturgis of Gorton School read a paper on "Cathedral Bells and Bell Pealing;" this was most helpful and interesting.

Mr. Roswell Parish gave a paper on "Demonstration of Chladni's Figures." The paper was illustrated by a number of experiments which can be profitably used in order to make clear to the pupil the fact that a body can vibrate as a whole and in parts at the same time.

Mr. H. L. Crane of Groton School gave a talk on the "Physics of the Pipe Organ," which was at once helpful to everyone present. The speaker went into considerable detail concerning the construction and action of the organ.

Following the luncheon in the library of the school, Professor Sabine of Harvard University gave an account of some recent experiments on the "Interference and Resonance in Architectural Acoustics." The speaker told how it was possible to record the intensity of sound continuously along a fine spiral from the walls to the center of a room while a steady source of known intensity is sounded at a particular part of a room. From these records it is possible to plot contour lines showing the distribution of the vibration in the room.

The last subject on the program was an informal talk by Mr. John C. Packard of Brookline on "The Mechanism of the Ear." He illustrated his talk with some slides, which explained the mechanism of the ear clearly. He also explained the construction and use of an audiometer.

*(Abstracted from the report.)*

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### SEVENTH ANNUAL MEETING OF THE MISSOURI SOCIETY OF TEACHERS OF MATHEMATICS AND SCIENCE.

The seventh annual meeting of the Missouri Society of Teachers of Mathematics and Science met May 5, 6, 1911, at Columbia, Mo. In addition to the routine business and the election of officials, the following program was carried out in the mathematics section. The opening address was given by President George Melcher on "Mathematics in the Elementary Grades." The paper was strong in presenting the needs in the elementary course.

Perhaps the most striking feature of the program was the development of the idea of presentation of mathematics from the standpoint of the real or applied problem. Miss Adrians Liepsner of the Westport High School, Kansas City, led this work with a paper on the "Necessity and the Possibility

of Interesting High School Students in Mathematics." Miss Liepsner presented some of the Westport students' work, which was highly creditable and showed how it was possible to apply geometry to designing and other activities. The basis of the real problem question was outlined in a thorough paper by Mr. W. S. Monroe of the university faculty, Columbia. Mr. Monroe has carried on some extensive experimenting in the real problem field with classes in the first year high school, with particular respect to algebra. His paper entitled "An Experiment in First Year Algebra" called forth some pertinent discussion, which led to the appointment of a committee to investigate the field of possible problem material and see what could be done toward advancing the idea in the high schools in Missouri. Another important feature of the program was a paper by Mr. H. C. Harvey, State Normal School, Kirksville, on "Articulation of Some of the Principal Topics of Arithmetic."

The keynote of the meeting was the making of mathematical teaching more economical, more usable, and more useful. A very stimulating meeting.

Byron Cosby, Retiring Secretary, Kirksville, Mo.

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### AN EDUCATIONAL BILL.

It is fortunate for the general welfare of the country that we have men in Congress who are intensely interested in all phases of education. Frequently measures are introduced in which friends of education should become thoroughly active. Hon. Carroll S. Page, member of the United States Senate, has recently introduced a bill having in view the extension of government and to the states in promoting a better system of education along agricultural and industrial ideas and in home economics in secondary schools; in maintaining instruction in these vocational subjects in state normal schools; in maintaining extension departments in state colleges of agriculture and mechanic arts; and to appropriate money and regulate its expenditure.

If those reading this will write their senator or representative for a copy of the bill, familiarize themselves with it and then talk or write to their friends who are interested in secondary school instruction in agriculture, there will be little doubt but what this meritorious bill will pass.

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**HUMAN ENGINEERING** is a new profession called into being by conditions in the industrial world. This profession bears the same name as a publication, and seemingly has to do with the human side of industry and the conservation of human energy.

**THE HAMBURG DOUBLE TUNNEL** which has been in process of construction for the past three years under the River Elbe at Hamburg, Germany, will be opened this year. It is about fifteen hundred feet long, and the cost of the two bores will be close to \$2,500,000. Each bore has a roadway for automobiles and other wheeled traffic, and two footpaths. One bore is used for the up traffic and the other for down traffic.

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