THE TECH

VOL. XXIX. NO. 99. BOSTON, MASS., THURSDAY, FEBRUARY 24, 1910 PRICE ONE CENT

MRS. FRANCIS TO HELP TRAIN CHORUS GIRLS

Schedule Of Show Performances Will Probably Be Completed This Week

Mrs. James Francis is coming to Boston in a few weeks to help Mr. Francis train the ballet of twenty-four dancing girls for "The Queen of the Cannibal Isles," Tech Show 1910. Mrs. Francis trained the six dancing girls for the Show of two years ago, who were one of the features of the Show, making a great hit in the skipping-rope and in the dust-pan dances. She was unable to come up last year on account of illness, but she has completely regained her health, and will be up to give Tech Show 1910 the benefit of her wide theatrical experience.

As "Sallie Lomas" Mrs. Francis originated the "Champagne Dance" that was such a success in "The Silver Slipper" a few years ago. She was also one of the Floradora Sextette in the play of that name; and it was then that Mr. Francis met her. She has always taken a great interest in the Show, and has been a great factor in some of the former successes of that production.

Show rehearsals were held all day Washington's Birthday, when the members of the chorus were put on the floor for the first time. All the "green chorus girls" experienced, at first, quite some difficulty when it came to singing and dancing at the same time. The chorus is coming along in first-rate shape, the men putting more snap into the music at every rehearsal. A bit more practice in dancing will see the men on par with former Tech Show choruses.

The principals are going at their work with the vim of old, experienced professionals. All the fellows are working hard to make this year's cast a record breaker.

General Manager Clapp hopes to be able to announce the schedule of the Show the latter part of this week. He has been busy for the past few weeks making flying trips, signing contracts with the theatres, etc. There will in all probability be five or six performances of the Show—two in Boston at Shubert's theatre, and three or four out of town.

NAVAL BRIGADE WANTS MEN

The Massachusetts Naval Brigade wishes it made known that it is in need of men of good size and build. The organization is under the supervision of the Navy Department and has a station ship of its own, the U. S. S. Chicago, lately a part of the Naval Academy training fleet.

Men are required to devote one evening a week to drills of different kinds connected with duties afloat and ashore. They will be required to go on a cruise of eight days, coming in the latter part of July in each year. Last year the cruise was made upon the ships of the North Atlantic Battleship Squadron.

This furnishes an excellent opportunity for any man who has a liking for the water to become familiar with Navy methods and drills, to see something of the coast and to enjoy many short cruises over week ends in small boats, torpedo boats and the large ships.

For further information apply to Lieut. L. F. Gates, 1102 Barristers' Hall, Boston.

London, Feb. 23.—The second-class cruiser, Bristol, was launched at Clyde Bank today. It is the first British warship to be fitted with turbine engines of the Curtis (American) type.

PROF. KENNELLY TALKS ON WIRELESS TELEGRAPHY

Hints At New Apparatus Under Construction To Eliminate Interference

"It is possible with new apparatus now under construction to cut out all amateur interference," said Prof. Kennelly of Harvard before the Electrical Engineering Society in the Union last evening.

Wireless telegraphy as the newest and most wonderful of inventions has enormous possibilities. Messages are now capable of being sent 4,000 miles, and this distance will be augmented constantly if improvements continue as they have in the past ten years. In fact, Dr. Kennelly expressed his hopes that signals might be sent half-way around the earth.

In regard to the numerous discussions in newspapers and magazines concerning the "horrors" of amateur wireless operators, Dr. Kennelly admitted that stations suffered inconveniences by these youthful aspirants, but felt no fear of consequences resulting from their interference, for there is one new system which eliminates all such interferences. This system he declined to discuss, but nevertheless he expressed his confidence in it.

The question has arisen as to how far wireless telegraphy shall take the place of cables. It is interesting to note that few cables have been supplanted by wireless installations, and their replacement by wireless telegraph is far away.

Wireless messages are carried twice as far over the ocean as on land and much easier in the night than in the day-time. Since the sun has such a marked eect in decreasing the efficiency of wireless signals, official and commercial reports are sent at night almost entirely. This effect is not evident between stations near each other, but is noticeable in cloudy, as well as in fair weather.

The main difference between wireless and wire telegraphy is the fact that electric fluxes are channelized by the use of wires, while in wireless telegraphy there is no guide for the fluxes except the ground. The elimination of this characteristic defect in wireless is possible to a certain degree, but there is no practicable method applicable except wires as yet. There is also room for improvement in the sensitiveness of receiving apparatus, which shall maintain low resistances. The receivers in use now, although very sensitive, have too high a resistance. Wireless messages are not capable of being directed and thus an operator must wait for the signature to determine where the message is from.

The average speed of communication by wireless is fifteen words a minute, although this speed is often augmented to twenty-five words a minute. The international code is the continental code, except in the United States, where the Morse code is still in vogue. This differs from the continental code in only about ten words. Considerable progress is expected to be made in respect to speed in the near future.

Dr. Kennelly gave a diagramatic exposition of the principle of the Hertz dumb bell oscillator as applied to wireless telegraphy, showing in detail how the wireless telegraph is in reality semi-waves of the Hertz oscillators.

At the close of his lecture Dr. Kennelly answered a few questions pertaining to his subject. Light refreshments were served.

TECHNICAL GRADUATES AS MANAGERS OF MEN

Sympathy The Keynote Of Success In Dealing With Foreign Laborers

Dr. G. W. Tupper spoke to the Technology Christian Association last evening on "The Technical Graduate as a Manager of Men." Dr. Tupper, through his experience in handling emigrants from foreign ports and through his study of the problem confronting the American nation of melting the various peoples together into one great whole, was recently made special correspondent to the Boston Transcript to write a series of artieles dealing with "The Great Emigration Ports."

Tech men through their training will hold positions of great responsibility controlling big concerns and large amounts of money. They must know how to control intricate machines and must understand them thoroughly. The most difficult machines to manage, it must be remembered, are men. The man who knows how to deal with men has an asset more valuable even than the technical training dealing with the management of inanimate machines.

The men with whom a Tech graduate will have to deal come mainly from across the sea, emigrants from southeastern Europe. Their customs and traits of character differ from our own and must be understood in order that the men may be handled to the best advantage. They should be studied carefully by the student while he is yet learning the management of technical machines.

Sympathy is the keynote of success in dealing with these foreigners. They should not be treated as material asset, but as human beings. They often are very ambitious, desirous of college education and intent upon serving society. Many times they are highly capable, rising from positions at $1.50 per day to positions controlling contracts for hundreds of thousands per year.

The fundamental idea of democracy lies in the trust of one another. Lack of this trust is what prevents the natives of India, with their shrewd intellects, from ever being capable in management. The best management is through appeal to the intellect and not through the use of the whip.

We are all representative of our country. Foreigners see America through us. It is our opportunity to make friends or enemies, our duty to cater to the best and noblest of all with whom we come in contact.

After a short discussion of the advisability of substituting the regular Union dinner at twenty-five cents for the customary twenty-cent dinner in connection with the talk, the meeting adjourned with a short prayer.

Dr. Mann's bible class held in Trinity Parish House, followed the dinner. The subject discussed was "The Divinity of Christ."

Nert week, Mr. H. D. Gallaudet of Central Church will address the Christian Association on the subjec "Towers."

London, Feb. 24.—In the House of Commons yesterday Premier Asquith stated definitely that the government had no intention of introducing a home rule bill for Ireland during the present session.

Pekin, Feb. 24.—According to despatches received here today from Tokio, the annexation of Korea is foreshadowed in Japanese press reports, apparently inspired, and such annexation may occur at any moment.

DR. TALBOT DESCRIBES MODERN ILLUMINANTS

The Chemistry Of Substances Employed To Furnish Light Discussed

Professor Talbot addressed the Society of Arts on the "Chemistry of Modern Illuminants" last evening. The audience was large and interest was keen. Professor Talbot said he intended to deliver the lecture as advertised "as a simple story, in a simple manner, with little chemical nomenclature therein."

The professor began the talk with the candle. The old-fashioned rush lights were made by dipping reeds into tallow. These are used very little now. Modern candles have wicks of cotton yarn, flattened. The candle itself is formed by pouring paraffine into molds. Carbon dioxide gas and water vapor are the chief products of combustion in a candle light. The next illuminants discussed were oils, kerosene in particular. The state laws are very strict in regulating the grade of kerosene sold. The sale of oil which gives a gas inflammable below 100C. is forbidden. The lecturer showed the apparatus used in testing the gas given off by kerosene. Ammonia and sulphur are also products of combustion of this oil.

Acetylene was the next product discussed. This gas is somewhat dangerous because of its tendency to explode when mixed with air and heated. Professor Talbot took up the construction of the acetylene tanks used on automobiles. He also made a miniature acetylene flaming torch such as is used in rescue work at sea, and which blazes up when striking the water.

The Welsbach mantle was the next topic. The Welsbach people supplied Professor Talbot with lantern slides illustrating the manufacture of the mantles. The mantles are made of cotton or of a Chinese grass. Cotton is most used in ths country. The mantles are woven and treated with thorium and cerium. Then the cotton is burned out and the mantle is shaped. It is dipped in a solution of collodion for packing. This collodion is what we burn out before using the mantle. The most brilliant light is given by the mixture of 99 per cent. thorium dioxide and one per cent. cerium dioxide.

The next Society of Arts lecture will be delivered by Prof. Percival Lowell on "Commerce," on March 9 in Huntington Hall.

CALENDAR.

Thursday, Feb. 24.

7:30 Mining Engineering Society, Union. Illustrated Lecture by Prof. Daly on "Hawaiian Volcanoes."
8:00 Chemical Society, Union. Mr. W. W. Duncan on "Rubber Manufacture."
8:00 Basket-ball. Tech vs. Lowell Textile at Lowell.
8:00 Gym Meet at Salem.

Friday, Feb. 25.

1:00 1910 Class Meeting, Huntington Hall.
8:00 Union Entertainment.
8:00 Military Hop, M. I. T. Cadets, Howe Hall.

Saturday, Feb. 26.

3:00 Indoor Track Meet, 1912 vs. 1913, at Gym.
8:00 Basket-ball. Tech vs. Maine at Gym.
8:00 Gym Meet. Tech vs. Amherst at Gym.