

condensed vapor to be covered by coal-smoke. These fogs usually accompany a high barometer, and are frequently dry in their character.

It is a well-known fact that cold air on the tops of hills, being heavier than the air below, slides down the slopes; so that the lower parts of hillsides are actually colder than the plains at some distance from the hills. Now, London, in the Thames valley, is surrounded by hills, — to the north, Highgate, Hampstead, and Harrow; in a westerly direction, Putney and Wimbledon; and in a more southerly direction, Clapham and Sydenham. The air is colder on these hills than in London, with its millions of inhabitants, its coal-fires and factories: hence it is heavier, and will have a great tendency to slide down the hills towards the town and the river. Should the air in town be on the point of saturation, and the cold air from above saturated with vapor, it is obvious that the increased cold from above will produce a precipitation of moist-

working drawings made, but actual construction is required, and is made possible in extensive workshops, the equipment of which has cost over forty thousand dollars. In electricity, in addition to the instruments and appliances usually found in electrical laboratories, it possesses the most complete and accurately adjusted series of Sir William Thomson's electrical balances in this country; and there is a completely equipped testing-room for the purpose of calibrating and standardizing commercial instruments. Another important feature is the restriction placed upon the number of students admitted. The plan of the institute is to limit the attendance to such an extent as to realize the great benefits arising from small classes. Ample facilities will therefore be afforded to all who undertake its courses of study. Those who are contemplating preparation for either mechanical, civil, or electrical engineering, will do well to consult the catalogue of the Rose Polytechnic Institute.



TURNOUT ON THE SPRAGUE ELECTRIC ROAD AT READING, PENN.

ure, and it will come to pass that a fog is produced. If the hill-tops be not only colder than the air below, but enveloped in a fog, it stands to reason that the fog below will be all the denser, and especially in the neighborhood of water, such as the river Thames, and the ornamental waters in the parks.

#### THE ROSE POLYTECHNIC INSTITUTE.

THE Rose Polytechnic Institute is one of three or four schools in the United States which are especially devoted to the education of civil, mechanical, and electrical engineers. It owes its existence to the generosity of the late Chauncey Rose of Terre Haute, Ind., who bequeathed something more than half a million of dollars for its establishment and support. It is one of the youngest of the technological schools of the country, having been opened in the year 1883. One of the peculiar features of the institute is the thorough and extensive "shop-practice" of the students in mechanical engineering. Not only are machines designed, and

#### THE DERELICT AMERICAN SCHOONER "W. L. WHITE."

MR. EVERETT HAYDEN, meteorologist to the Hydrographic Office, has compiled the reports on the history of the derelict schooner "W. L. White," and the results of his investigation have been published on a supplement to the monthly "Pilot Chart," a portion of which is reproduced here. Besides showing the track of the "W. L. White," those of the derelict barks "Telemach" and "Vinocuzo Perrotta" have been plotted on the map.

Mr. Hayden reports that a telegram dated Stornoway, Hebrides Islands, Scotland, Jan. 23, 1889, marks the termination of the remarkable cruise of this derelict vessel. Abandoned off Delaware Bay during the great blizzard, March 13, 1888, she has now completed her long and erratic transatlantic voyage, and lies stranded upon Haskeir Island, one of the many little rocky islands of the Hebrides, in latitude  $57^{\circ} 42'$  north, longitude  $7^{\circ} 42'$  west. The track of this vessel, as plotted on the "Pilot Chart" from month to month during this long interval, has been of constantly increasing