

NOTES FROM THE ENGINEERING SCHOOLS

MASSACHUSETTS INSTITUTE OF TECHNOLOGY—A fund of 15,000, to be known as the "Ellen H. Richards Fund for Sanitary Research," has been raised by friends of Mrs. Richards. It is hoped to increase the fund from time to time; the income is to be used for fellowships to advanced students who shall be competent to pursue sanitary research, for the employment of research assistants, or in such other ways as may best promote the cause of the chemistry of sanitation. Mrs. Richards was a graduate of this institution, and instructor in sanitary chemistry from 1884 up to her death in 1911.

COLORADO AGRICULTURAL COLLEGE—A new hydraulic laboratory is being constructed jointly by the experiment station of this institution and the U. S. Office of Experiment Stations, Department of Agriculture. It is believed by the designers that the present methods of estimating the flow along streams or ditches are based on data which are not wholly applicable to present-day conditions in irrigation work, and the function of this laboratory will particularly be to show the proper corrections of older data.

This laboratory, it is reported, will cost \$10,000. There is to be, first, a large main reservoir of concrete, with a capacity of $\frac{1}{2}$ acre-ft. of water. The release from this reservoir is through a large headgate on one side and the flow is through a flume to the testing tanks. There are several of the latter in order to facilitate the experiments. The contents of these tanks have been measured carefully so that the exact capacity of each may be accurately known. The results of experiments may be published by either state or federal authorities.

✱

The Tank Steamer "Rosecrans" Went on the Rocks of Peacock Spit at the mouth of the Columbia River, near Astoria, Ore., on Jan. 7, and was lost with 33 of her crew.

The Bursting of a Compressed-air Pipe at the Brooklyn end of the Manhattan Bridge, New York City, on Jan. 7, precipitated two workmen from a scaffold to the street, 40 ft. below, causing them serious injury. The injured were members of a gang of painters, who were working on the pipe line at the time of the accident.

The Collapse of Two Buildings, at Rome, Italy, on Jan. 8, caused the death of 10 people and the injury of as many more. It is stated in press dispatches that the foundations of the National Industrial Museum were weakened by excavation work nearby, and when this structure collapsed it carried down with it an adjoining apartment house.

An Explosion in the New York Subway Extension, at 103d St. and Lexington Ave., New York City, on Jan. 9, killed one and injured four of the tunnel workers. A blast missed fire when it was attempted to set it off with the battery and then exploded shortly afterward when the men went near to find why the charge did not go off.

The Steamer "Uranium" Ran Aground at the entrance to Halifax harbor, Nova Scotia, on Jan. 12, during a thick fog, and three hours later transferred her passengers, to the number of 839, to rescue steamers sent to her aid. The vessel struck on a sloping shore with her bow on the rocks and her stern in deep water. She was making her first trip as the pioneer ship of a new transatlantic line.

A High Flood, in the Ohio River, did damage amounting to a million dollars last week, at Pittsburgh, the water there reaching a stage of 31.3 ft., the fourth highest on record. The U. S. Weather Bureau, on Jan. 12, reported conditions as follows:

The crest of the principal flood in the Ohio River is between Cincinnati and Louisville. As a result of continued rains for 48 hours, the second rainy period within a week,

the river is again in flood in its upper reaches, but the second flood wave will not be so severe as the first one was.

A stage of 62 or 63 ft. is indicated for Cincinnati on Tuesday, and on the same day it is expected that the flood stage at Paducah, Ky., 43 ft. will be reached. The flood stage at Cairo, Ill., 45 ft., is indicated for Wednesday.

Panama Canal Excavation during December totaled 2,815,816 cu.yd., a daily average of 122,632 cu.yd. for each of the 25 working days. Rainfall for the month was 6.51 in. The amount of concrete laid in December was 62,907 cu.yd. and 196,426 cu.yd. of fill were placed in dams.

St. Paul's Cathedral, in London, is in danger of undermining from a projected new subway and station, according to a report by Sir Francis Fox, the eminent British engineer, made to the Dean and Chapter of St. Paul's, on Dec. 30, 1912. After describing his examination of the edifice, Sir Francis says: "The Cathedral is overloaded; it is actually moving and cracking, and now a proposal is brought forward, which can in no way contribute to its safety, but may at no distant date, bring about serious injury. I am of the opinion that this covered way and station should on no account be permitted in such close proximity to the Cathedral."

The London County Council must now decide if the work will be continued in the face of such advice.

The Guyandot River Bridge Wreck, near Huntington, W. Va., on Jan. 1, 1913, is covered by an account in the "Railway Age Gazette," of Jan. 10, credited to an officer of the Chesapeake & Ohio Ry. According to this, three 150-ft. iron single-track spans were being replaced by double-track steel spans, and work was in progress on the middle one. The floor of this span was supported on pile falsework, the old trusses having been taken down and the new trusses not yet erected. The river was 8 ft. above low-water, and the current swifter than at any time since the piles had been driven. Rock is about 20 ft. below low water, and the piles went to rock through overlying sand. There had been no settlement prior to the accident. The train before the wrecked one, an hour earlier, passed over without indications that anything was wrong, although the bridge gang watched for signs of settlement. The next train, a westbound freight, moving slowly across the bridge, was wrecked by settlement of the upstream side of the falsework; the engine and one car turned over and fell into the river, carrying down the falsework. The engineman of the train and six bridgemen were killed. The division supervisor of bridges and buildings had examined the bridge before the wrecked freight crossed, and pronounced it safe. Undermining of the piles is supposed to have caused the accident. Timber is floated down the Guyandot, and some logs may have lodged against the bottoms of the piles and caused scour.

Three Transatlantic Liners Went Aground in New York Harbor during the week just past, owing to the difficulty of navigating in the prevalent heavy fogs. On Jan. 4 the Hamburg-American liner "Amerika" out-bound, ran aground on the eastern edge of the channel off Bay Ridge, in Brooklyn. On Jan. 7, the White Star steamer "Adriatic," also out-bound, attempted to anchor near Bedlow's Island to wait for the fog to disperse, but could not find anchorage and drifted aground just south of Governor's Island, off Van Brunt St., Brooklyn. On Jan. 9 the Red Star steamship "Kronland" went aground on the edge of the Ambrose Channel somewhat farther out of the harbor than the other two. All of the ships were able to get away at high tide and proceeded on their voyages.

Electric Traction on 450 miles of main-line track of the Chicago, Milwaukee & Puget Sound R.R. or between Harlowtown, Mont., and Avery, Idaho, is contemplated according to reports (unofficial) from the U. S. Department of the Interior. It appears that a 50-year grant has been made to the Great Falls Power Co., of Montana, to transmit power over the public domain. The company already has its transmission line built, under a termless revocable permit, serving mines at Butte and Anaconda, and all classes of power consumers, but the railroad company is reported unwilling to have proceeded with its work under the older permit. The rental charge for the right-of-way during the first ten years will be five mills per 1000 kw.-hr.

This power company also supplies the Butte, Anaconda & Pacific Ry., which operates about 30 miles of single-track line with a 2400-volt direct-current line. (See Eng. News, Aug. 15, 1912). As 16 miles of this road is jointly operated with the C. M. & P. S. R.R., it is possible that the entire system of the latter may be similar—though that fact has not been announced.

A Derailment on the Chicago Elevated Loop, in the business district of Chicago, which forms the terminal for all the elevated railway lines, occurred on Jan. 8, and resulted

in a car falling from the structure. A three-car train of the Chicago & Oak Park Elevated R.R., had just turned the right-angle curve from Van Buren St. to Fifth Ave. (going north on Fifth Ave.) when the rear car left the rails and after bumping over the ties for a short distance it fell from the structure into the street.

The accident occurred in the early morning when traffic was light. Only two passengers were in the rear car and when this was derailed they had time to run forward to the next car before the other fell. The forward truck of the derailed car remained upon the structure. It has been suggested that as this was a light trail car (without motors) it might have been subjected to exceptional shock and vibration in rounding the curve at high speed. This is the more likely for the reason that the curve is intersected by another curve in the opposite direction, this being a junction of two lines at right angles, so that the angle of the crossing frogs is very flat. The guard timbers are extended as nearly to the intersection as possible, and the damage to them begins just beyond the frog, indicating that the truck was derailed at the crossing-frog and jumped the guard-timber while still on the curve, the wheels being in such position that the guard could not guide them into position. On the tangent the guard timbers were torn and splintered, and the ends of some of the ties broken off by the car in falling over.

There has been some complaint in the past at the speed at which trains frequently pass these sharp curves on the four corners of the loop. These curves are of 90- and 95-ft. radius. At two of the corners there are junctions with grade crossings on the curves, and as no superelevation can be introduced the motion is felt very distinctly by the passengers in the trains. These grade crossings, also, with their flat-angled crossing frogs, make very rough-riding track and cause considerable noise and jar in the trains. The speed is supposed to be limited to 8 m. p. h., but it is suggested that this should be reduced to 6 m. p. h. As every train passes all these corners (there being no through routes) the wear on the track is very severe, and the opportunities for maintenance and renewal work are limited. The city has ordered an investigation as to the cause of the accident, including the condition of both the track and the rolling stock.

Possible Danger to the Water-Supply of New York City is given as a reason for the denial of an application to locate a tuberculosis hospital for Westchester County in the Croton drainage area. The application was denied by the State Department of Health after two hearings, at which a number of sanitary engineers and others appeared both for and against the location. The hospital was to have been placed on a farm of 277 acres, through which flowed two brooks, which empty into the Croton Reservoir. Commenting on the denial of the application, it is stated in the monthly bulletin of the New York State Department of Health for Nov. 12, that:

While undoubtedly it would be possible to dispose of the sewage from an institution of this kind so that it would not be a menace to the water-supply, this involves expert and efficient management. Having in mind the effect of political control over the management of such institutions, the Commissioner held that there can be no positive assurance that the sewage-disposal plant would always be operated so that no contamination of the New York water-supply would result, and therefore he was unable to assume the responsibility of approving the site in question. Other sites are available where these dangers do not exist, and the Commissioner felt obliged to deny the application of the Board of Supervisors.

PERSONALS

Mr. Charles H. Baldwin, Manager of the National Meter Co., Boston, Mass., has been elected President of the Franklin Savings Bank of Boston.

Mr. A. D. Furlong, General Superintendent and Electrical Engineer of the Springfield (Ill.) Consolidated Ry., has been appointed General Manager.

Mr. Lloyd B. Jones has been appointed Assistant Engineer of Motive Power of the Pennsylvania R.R. Lines West of Pittsburgh, with headquarters at Toledo, Ohio.

Mr. C. W. Akers, Trainmaster of the Seaboard Air Line Ry., at Plant City, Fla., has been appointed Superintendent of the Norfolk Southern R.R., at New Bern, N. C.

Messrs. Christopher H. Bierbaum and William M. Dollar, M. Am. Soc. M. E., announce the formation of Bierbaum-Dollar, Inc., with offices at 1142 Prudential Bldg., Buffalo, N. Y.

Mr. J. Bruce Ismay, President of the International Mercantile Marine Co., which controls the White Star Line, owners of the ill-fated "Titanic," has resigned, effective June 30.

Mr. Herman Hall, Division Engineer of the Louisiana Southern Ry., has been promoted to be General Superintendent, at New Orleans, La., succeeding Mr. W. H. De France, resigned.

Mr. A. L. Grandy has been appointed Chief Engineer of the Perre Marquette R.R., with headquarters at Detroit, Mich. Mr. Grandy was formerly Division Engineer at Saginaw, Mich.

Mr. R. C. Harris, Division Engineer of the Pennsylvania R.R. Lines West of Pittsburgh, at Akron, Ohio, has been promoted to be Supervising Engineer, attached to the staff of the General Superintendent at Columbus, Ohio.

Mr. G. C. Wilhelmi has announced the dissolution of the partnership of Wilhelmi & Smith, Cleveland, Ohio. Mr. Wilhelmi has opened an office at 810 Columbia Bldg., Cleveland, as a contractor and builder of engineering structures.

Mr. L. J. Ferritor, formerly Division Superintendent of the Chicago & Alton R.R., at Bloomington, Ill., has been appointed Superintendent of the Scranton division of the Delaware, Lackawanna & Western R.R., at Scranton, Penn.

Mr. J. J. McCullough, recently Inspector of Terminals of the Northern Pacific Ry., St. Paul, Minn., has been promoted to be Superintendent of the Puget Sound division, which includes the terminals at both Seattle and Tacoma, Wash.

Mr. C. S. Sheldon, Assoc. M. Am. Soc. C. E., recently First Assistant Engineer of the Cincinnati, Hamilton & Dayton Ry., Cincinnati, Ohio, has been appointed Engineer of Bridges and Structures of the Pere Marquette R.R., with headquarters at Detroit, Mich.

Mr. M. J. Kennelly, recently Division Superintendent of the Chicago, Rock Island & Pacific Ry., has been appointed General Manager of the Kansas City, Mexico & Orient Ry., succeeding Mr. Edward Dickinson. His headquarters will be at Kansas City, Mo.

Dr. Henry M. Payne, formerly Professor of mining engineering at the West Virginia University, and recently Mining and Metallurgical Expert with Stephen T. Williams & Staff, Inc., 50 Church St., New York City, has been appointed Chief of Staff of the company.

Mr. Harry A. Hyman has become associated with Mr. Marshall W. Brown, Assoc. Am. Soc. C. E., as Manager of the Waterproofing & Construction Co., 35 Wall St., New York City. Mr. Brown will continue his private practice as a consulting construction engineer.

Mr. John H. O'Neil, formerly connected with the American Museum of Natural History, New York City, and a graduate in sanitary engineering of the Massachusetts Institute of Technology, has been appointed Sanitary Engineer of the Louisiana State Board of Health.

Mr. H. E. Newcomet, Division Engineer of the Cleveland & Pittsburgh division of the Pennsylvania R.R. Lines West of Pittsburgh, at Cleveland, Ohio, has been appointed Superintendent of the Louisville division, with office at Louisville, Ky., succeeding Mr. F. J. Kron, promoted.

Mr. F. D. Batchellor, Division Engineer of Maintenance-of-Way, of the Baltimore & Ohio Southwestern Ry., at Seymour, Ind., has been promoted to be Assistant to the General Superintendent of the Baltimore & Ohio Southwestern and the Cincinnati, Hamilton & Dayton Rys., at Cincinnati, Ohio.

Mr. J. W. Eber, M. Am. Soc. C. E., has been promoted from the position of General Superintendent to that of General Manager of the Toronto, Hamilton & Buffalo Ry., at Hamilton, Ont. Mr. Eber was formerly Division Engineer and Division Superintendent of the New York Central & Hudson River R.R.

Mr. Franklin K. Lane, of California, a member of the Interstate Commerce Commission since 1905, has been elected by the commission, Chairman, for a term of one year. Mr. Lane is a Canadian by birth and a lawyer by profession. From 1897 to 1902, he was corporation counsel for the city of San Francisco, Calif.

Mr. A. Hussey, Assoc. Am. Inst. E. E., Supervisor of Transmission, in charge of the construction and maintenance of all the transmission facilities of the electric zone of the New York Central & Hudson River R.R., has resigned to become Acting Superintendent of Distribution of the Edison Electric Illuminating Co., of Brooklyn, N. Y.