

showed an increase in the same time from 0 to 5 pounds. During this half-hour the air in the boat seemed to be reasonably pure, the heat was not as great as that in the engine-room of an ordinary steam-vessel, and there appeared to be no reason why such a voyage could not be continued for several hours without inconvenience to those on board.

NEW JERSEY SANITARY ASSOCIATION.

THE New Jersey sanitary association held its twelfth annual meeting at Trenton on the 19th and 20th of November. There were in attendance about one hundred members. The meeting was regarded by all as the most interesting and valuable the association has ever held.

We can give but brief mention of the proceedings. A paper on 'Disposal of house-sewage in districts not provided with sewers' was read by C. P. Bassett, C.E., of Newark. In the state of New Jersey there are only about a dozen of the towns which have any system of sewerage, and several of these are in a miserable condition. After denouncing the methods in vogue in places where no sewers exist and privy-vaults and cesspools abound, he referred to the advantages of the movable pail system in use in Birmingham, England, where 40,000 pails, representing 250,000 people, are collected weekly and carried to the dumping-station, where the contents are placed in a tank, treated with sulphuric acid, dried, and bagged for sale. The net cost is less than a cent a head annually. He next referred to the dry-earth system, but believed it could not secure wide popularity, the difficulties connected with the procurement of a proper supply of earth and the proper subsequent management of the waste being very great. The 'sub-irrigation' system was then described.

Shippen Wallace, Ph.D., of Burlington, read a paper on 'Preserved foods.' There are at the present time 800 factories in the United States engaged in the canning of foods. In these factories 500,000,000 cans are packed annually: of these, 50,000,000 are salmon, 72,000,000 tomatoes, and 25,000,000 corn. Although much has been said in the public press and elsewhere about the possible danger of poisoning from the contents of these cans, he believed there was no case on record of poisoning, either fatal or otherwise, where the materials were sound when packed. In discussing this paper, Professor Wilbur of Princeton college thought more attention should be paid to the cleanliness of the surroundings of canning-factories. He had examined one where the premises were in the most filthy condition. Dr. Davis said he had

occasion to examine a large number of operatives in canning-factories, and had found sores on their arms, and had reason to believe this was not uncommon. For this reason he thought that the sanitary authorities should make periodical visitations and inspections in all canning-factories. Dr. Quimby of Jersey City thought this sanitary supervision could be advantageously exercised over bakeries, sugar-houses, and candy-manufactories. Dr. Amering, president of the Society of American analysts, called attention to the sophistication of foods and drugs. In Philadelphia it was a common practice to use gelatine in cream-puffs, ice-cream, and charlotte russe, and the putrefaction of this had caused sickness in the consumers.

Dr. D. Benjamin of Camden followed with a paper on 'The relation between drinking-water and typhoid-fever.' He regarded the two as so intimately connected as to make it hardly ever worth the while to think of any other source for typhoid-fever. Dr. Baldwin of New Brunswick believed that it might be contracted in other ways; and Dr. Raymond of Brooklyn thought that it not infrequently was spread through the sewers, the infected discharges having been thrown into the soil-pipes without disinfection, and, through defects in the plumbing, sewer-air carrying the germs of the disease found its way into other houses. He regarded the two most important adjuncts in the eradication of typhoid-fever from towns or cities where the water-supply was good, and indeed for all places, as being a thorough disinfection of the discharges, and the correcting of all defects in the waste-pipes and traps. The total abolition of pumps in the city of Brooklyn had not produced much effect on typhoid-fever in that city, where it has existed with more or less prevalence from the time of the earliest records.

Other papers read were, 'Trap ventilation and the fresh-air inlets thereto,' by J. C. Bayles of Orange; 'The physical laws of pipes and fixtures and their contents,' by C. F. Brackett of Princeton; 'The duties of local inspectors, how best performed, and details of method,' by Henry Mitchell of Asbury Park; 'The work of the present and the immediate future for New Jersey health boards,' by Ezra M. Hunt; 'The physiological side of education,' by James M. Green of Long Branch; 'Physical restraint and relaxation in the schoolroom,' by Charles Jacobur of New Brunswick; 'The work of the plumber and the modes of conveying and disposing of sewage,' by J. J. Powers of Brooklyn; 'The chief points in sanitary administration, and the requirements as to vital returns and the notification of disease,' by J. H. Raymond of Brooklyn; 'What boards of

health can do to prevent adulteration of foods and drinks and the sale of dangerous illuminants,' by W. R. Newton of Paterson. Dr. Newton was elected president for the ensuing year. The association adjourned to meet at Trenton next year.

NOTES AND NEWS.

THE limits of glacial action in Russia appear on all our maps, according to the observations of Murchison and his colleagues many years ago, at a time when the glacial theory was in its infancy, and when the investigation of glacial records was in a very crude state. It is therefore welcome news to students in this branch of geology to learn that Nikitin, chief of the Russian geological bureau, has lately reviewed the question, utilizing all local information, so difficult of access to American readers from its being largely in Russian, and adding many special observations of his own. His discussion is published in the ninth number of Petermann's *Mittheilungen* for the current year, and is accompanied by a small-scale map showing the margin of the glaciated area, in which the characteristic indented outline clearly appears, though not on so remarkable a scale as in this country. The subdivision of the drift is not carried so far as it has been with us, and its influence on the topography is hardly considered: much further information may therefore be expected from later investigations.

— Although Mont Blanc has for a quarter of a century been French soil, its climbers have not usually shown an annual majority of Frenchmen; yet this has been the case this year. The ascent was made by 31 French (three of them ladies), 25 English (one lady), 10 Americans, seven Swiss (two ladies), six Germans, two Russians, two Swedes, one Italian, and one Belgian, — total, 85.

— Glanders is still quite prevalent in Brooklyn. But a short time ago the officers of Bergh's society found that a horse which had been transporting meat from a slaughter-house to the butcher-shops for eight months, had during all that time been suffering from glanders. The owner of the horse was arrested, and fined a hundred dollars, and, in default of its payment, was sent to jail. Three other horses have been attacked with the disease in the same stable, and all four have been killed. The number of horses which have been exposed during these many months is incalculable, and, unless rigid measures are taken, a widespread epidemic may be expected.

— The pharmaceutical society of Brooklyn has permanently established a course of lectures to be given annually to the drug-clerks of that society.

The course for the coming year includes lectures on poisons and their mode of action, antiseptics and disinfectants, chemistry as related to pharmacy, the microscope and its uses in pharmacy, and other subjects of importance and interest. The plan is an admirable one, and is worthy of reproduction by the pharmacists of other cities.

— The superintendent of buildings in Kansas City says that he finds very few buildings in that city in which the plumbing is as it should be. He finds that in some cases the only escape for sewer-gas is through the sink, the bath-tub, or the water-closet. He recommends the appointment of an inspector, whose duty it should be to examine the plumbing of all houses.

— Dr. Cyrus Edson's vigorous inspection of the food-supply of New York City is kept up with unabated vigor, and is undoubtedly preventive of much disease among the lower classes of the population. Recently Mr. Edson visited a wine-manufactory in Front Street, and reported that wine was being made by the following process: dried fruits, such as raisins, currants, and peaches, of low grade, are macerated with water, to which a certain amount of sugar is added. The mixture is then fermented, and, when fermentation is considered sufficiently advanced, it is checked by the addition of salicylic acid. The so-called wine is then clarified, flavored, and colored to resemble port, claret, or any other desired kind, the object being to imitate and undersell natural native wines. Dr. Edson claims that salicylic acid taken constantly, even in small doses, produces a depressing effect on the nervous system, and he believes the adulteration dangerous, and liable to cause illness. The manufacturer uses $4\frac{1}{2}$ grains of acid to a pint, and Dr. Edson condemned and seized all the wine that he found on the premises.

— M. Paul Janet has in press a new and revised edition of his valuable and suggestive work entitled 'Histoire de la science politique dans ses rapports avec la morale.'

— The French demand for English and German philosophical works seems to increase rather than diminish. M. Alcan has now in press translations of Spencer's 'Principles of sociology,' and of Preyer's 'Die seele des kindes.'

— In Belgium a royal decree of recent date has established at Ghent an academy of scholars and literary men, having for its object the study and cultivation of the languages and literature of the Netherlands. It is named Koninklijke vlaamsche academie for taal-en letterkunde. The king of the Belgians is the patron of the academy, which