The æsthetic influences of the Exhibition were finely illustrated in numerous ways during its progress, but no better testimony can be found than Lord Dufferin's reply to an address presented after its close by the Corporation of Ottawa. In the course of his remarks he said:—

"At no period in the history of the world have those bonds of sympathy and affection by which the members of the great Anglo-Saxon race are indestructibly united been drawn closer or rendered more sensibly apparent than at the present moment. The many proofs given by England of her friendly feeling towards the people of the United States have found their crowning expression in the noble way she has associated herself with them in celebrating the centennial year of their existence as an independent community, and nowhere has her Imperial dignity been more fitly or appropriately displayed than beneath the lucent roof of the Philadelphia Exhibition, where she sits enthroned amid her native treasures, and surrounded by the crowd of loyal colonies through whose intervention she not only extends her sceptre to the four quarters of the world, but has everywhere built up free institutions, and laid deep the foundations of an imperishable freedom. Facing her in generous emulation stands the United States, backed by the health of her virgin territories and the inventions of her ingenious artificers; and as you traverse the building from end to end, you almost forget to remember whether you be English, Canadian, Australasian, American, from Africa, or from India, in the proud consciousness that you are a member of that great Anglo-Saxon race whose enterprise has invaded every region, whose children have colonized two continents, whose language is spoken by one-third of civilized mankind, whose industry throngs the markets of the globe, and whose political genius has developed the only successful form of constitutional government as yet known to the nations of the earth."

An abstract of some of the reports will not, I hope, be uninteresting to your readers, and I will confine it almost altogether to those which treat of subjects of great economical importance to these colonies. I feel assured that general gratification will be expressed that the unprofessional judgments of the Australian Commissioners, who were first in the field with their reports, have been fully sustained by eminent British authorities.

Mr. Inspector Hagen, of the London Police, who reports on the sanitary and police arrangements, gives the following statistics in reference to the health of the residents on the Exhibition ground:—

Residents	1,158
Cases of fever	162
Deaths	26

So absolute was the sobriety and orderly conduct of American crowds, that he is enabled to say that "during the whole exhibition, with as many as 256,000 visitors in one day, scarcely a case of drunkenness was seen."

Captain Douglas Galton, to whom was committed the important charge of reporting on the railway section, shows what rapid improvements have been made in American railroad appliances. He says:—

"The Pennsylvania Railroad Company exhibited a section of their standard railway track. The main feature of the permanent way is in the shape of the head of the rail, the form of splice for the joints, the large number of sleepers, and the arrangement of the ballast. The rails are steel, of the Vignoles pattern. They are fished at the joint.

"There are two patterns of rails, one of 60-lb., the other of 67-lb. per yard.

"The 60-lb. rail is 4¼ inches deep, and the 67-lb. rail is 4½ inches. The head of the 60-lb. rail is 1⅜ inches deep, and the head of the 67-lb. rail 1½ inches deep. The splices are 2 feet in length; they are held by four bolts, two on each side of the joint. The outside splice has a tongue which passes over the flange of the rail and rests on the sleepers to which it is spiked.

"The joint is suspended midway between two sleepers, placed so as to be 10 inches apart between the edges of the adjacent surfaces. In winter 5-16 inch, and in summer 1-16 inch, are left between the ends of the rails to allow for expansion. There are 16 sleepers, 8 feet 6 inches long, 7 inches deep by 8 inches wide, to each 30-feet rail, the sleepers of the joints being placed 10 inches apart, and the others being evenly spaced between, but so that no sleepers should ever be more than 2 feet from centre to centre. The rails are spiked to each tie, both on the inside and outside.

"Great care is taken to obtain an even-bearing surface for the ties, which are not to be notched, but if twisted to be straightened with the adze. The subgrade is 31 feet 4 inches wide for the double road, and is formed with a slope from the centre towards each side, at an inclination of 1 in 20. The ballast is laid to a depth of not less than 12 inches under the sleepers, and is filled up evenly between, but not above the tops of the ties, and at the outer end sloped off to the subgrade. Where stone ballast is used it is broken evenly, and not larger than a cube that would pass through a 2½ inch ring. With double tracks, coarse large stones are placed in the bottom to provide for drainage, but care is taken to keep the coarse stones away from the ends of the ties.

"This road as exhibited, and for which an award was given, is the road in use over a large section of the Pennsylvania Railroad. It will be seen that this form of permanent way depends for its solidity mainly upon the large number of sleepers. The surface occupied by timber is nearly as large as that occupied by ballast. Therefore a lighter rail can be used than in this country, and so long as timber continues cheap this permanent way will hold its own. But the destruction of forests in recent years has been so great that this must soon cease. Another object obtained by this permanent way is that water drains off rapidly—a great matter in the hard frosts to which these lines are subject.

"A large amount of ingenuity is expended in the United States upon nut locks—*e.g.*, means for preventing the nuts which secure the fish-plates from becoming loose. None have as yet been found of such practical advantage as to obtain universal adoption; nor can it be expected that, with the forces always at work on a railway, anything can be devised which will do away with the necessity for frequent inspection."

Of the Wharbin switch, Captain Galton says it gives in practical working on railways great satisfaction, the principle being that it carries the train off the main line on to a siding without any break in the continuity of the main line rails, and he explains its arrangement. He praises the elliptical car