

NOTES FOR TEACHERS.

MONUMENT TO COLUMBUS.—It is proposed to raise a monument to the memory of the great Columbus at Palos, near Huelva, in Spain, the work to be completed at the time of the celebration of the Fourth Centenary in 1892. The monument is to be erected by Spain, but the Spanish-American Republics and the United States of America are invited to join in the celebration.

THE MANCHESTER SHIP CANAL.—This work of great engineering difficulty goes on quietly and rapidly and with much confidence in the result, on the part of all concerned. There in a corner of Cheshire, England, four "steam navvies" are at work and a whole army of labourers. The work naturally excites much interest. There are some deep cuttings to be made, and the crossing of the marshes is looked forward to with eagerness. Its completion will not only be a triumph of engineering skill, but a great boon to the city of Manchester.

JOHN J. WILLIS, superintendent of Lawes' and Gilbert's famous Experimental Farm at Rothamsted, England, writes to the *American Agriculturist*:—"Among the many invaluable experiments here, there are none more interesting, and certainly none more important, to the people of the world at large than those on the continuous growth of wheat for nearly a half century on the same land, commencing 1844 and continuing up to the present time, together with the investigations of the chemical components of wheat products in the mill, according to the conditions of growth or the circumstances of their preparation. The records, then, of a field of fourteen acres, on which

wheat has been grown without manure and by different kinds of manure year after year for forty-four successive seasons, without either bare-fallow or a fallow crop, and in which the lowest production per acre in the first year on any plot was 15 bushels of dressed grain, and in 1886, the last year, 9 bushels, and highest in the first year $24\frac{1}{4}$ bushels, and the last year $45\frac{1}{8}$ bushels, with an extreme range of from 5 to 56 bushels of wheat per acre, cannot fail to be of much interest at once to the practical farmer, the miller, and economist. It has been demonstrated by numerous experiments, both in the Old World and in the New, that not only may the relative proportions of the different parts of the wheat plant vary considerably in different specimens, but also that the composition of the berry itself is liable to great changes, according to the variety employed, the mode of culture, the season, the nature of the soil, and the manurial ingredients used. In fact, the more wheat, which is characteristically a starchy product, is perfectly matured, whether through the influence of variety, soil, season, or manure, the higher will be the proportion of flour obtained by milling, and as a rule the lower will be the proportion of nitrogenous substances, the lower that of the bran and the higher that of the starchy compounds."

THREE DANGERS.—Men and methods necessarily have "the defects of their qualities." Then, excellences, unless perfect balance is attained, tend to excess which is weakness, or else involve neglect of some other important matter. To recognize these defects of our qualities is to be guarded against them: and to point them