

Switzerland<sup>92</sup> by a peculiar and now extinct variety producing very small beans.<sup>93</sup>

*Potato* (*Solanum tuberosum*).—There is little doubt about the parentage of this plant; for the cultivated varieties differ extremely little in general appearance from the wild species, which can be recognised in its native land at the first glance.<sup>94</sup> The varieties cultivated in Britain are numerous; thus Lawson<sup>95</sup> gives a description of 175 kinds. I planted eighteen kinds in adjoining rows; their stems and leaves differed but little, and in several cases there was as great a difference between the individuals of the same variety as between the different varieties. The flower varied in size, and in colour between white and purple, but in no other respect, except that in one kind the sepals were somewhat elongated. One strange variety has been described which always produces two sorts of flowers, the first double and sterile, the second single and fertile.<sup>96</sup> The fruit or berries also differ, but only in a slight degree.<sup>97</sup> The varieties are liable in very different degree to the attack of the Colorado potato-beetle.<sup>98</sup>

The tubers, on the other hand, present a wonderful amount of diversity. This fact accords with the principle that the valuable and selected parts of all cultivated productions present the greatest amount of modification. They differ much in size and shape, being globular, oval, flattened, kidney-like, or cylindrical. One variety from Peru is described<sup>99</sup> as being quite straight, and at least six inches in length, though no thicker than a man's finger. The eyes or buds differ in form, position, and colour. The manner in which the tubers are arranged on the so-called roots or rhizomes is different; thus, in the *gurken-kartoffeln* they form a pyramid with the apex downwards, and in another variety they bury themselves deep in the ground. The roots themselves run either near the surface or deep in the ground. The tubers also differ in smoothness

<sup>92</sup> Heer, 'Die Pflanzen der Pfahlauten,' 1866, s. 22.

<sup>93</sup> Mr. Bentham informs me that in Poitou and the adjoining parts of France, varieties of *Phaseolus vulgaris* are extremely numerous, and so different that they were described by Savi as distinct species. Mr. Bentham believes that all are descended from an unknown eastern species. Although the varieties differ so greatly in stature and in their seeds, "there is a remarkable sameness in the neglected characters of foliage and flowers, and especially in the bracteoles, an insignificant character in the eyes even of botanists."

<sup>94</sup> Darwin, 'Journal of Researches,'

1845, p. 285. Sabine, in 'Transact Hort. Soc.,' vol. v. p. 249.

<sup>95</sup> 'Synopsis of the Vegetable Products of Scotland,' quoted in Wilson's 'British Farming,' p. 317.

<sup>96</sup> Sir G. Mackenzie, in 'Gardener's Chronicle,' 1845, p. 790.

<sup>97</sup> Putsche und Vertuch, 'Versuch einer Monographie der Kartoffeln,' 1819, s. 9, 15. See also Dr. Anderson's 'Recreations in Agriculture,' vol. iv. p. 325.

<sup>98</sup> Walsh, 'The American Entomologist,' 1869, p. 160. Also S. Tenney, 'The American Naturalist,' May, 1871, p. 171.

<sup>99</sup> 'Gardener's Chronicle,' 1862, p. 1052.