in fact, it is well settled that beets or cane grown on new soil, rich in salts of potash and soda, or upon fields which receive much of these substances in manure, contain less sugar, and yield less of what they do contain in the crystallized form, than when raised on poorer soils. Hot climates are best adapted to the production of sugar from the cane, and doubtless the sugar beet would yield a juice richer in sugar, more free from salts and fermentable matters, and therefore better adapted for the production of this indispensable article, if cultivated further south than has hitherto been the custom. Whether the culture of the two plants might not be combined, is a question to which I invite the attention of our Planters.

It is by no means impossible that a proper combination of enterprise, capital, and Yankee ingenuity under scientific guidance, might establish the beet sugar production on a profitable basis in our western country where lands are cheap; for the processes of manufacture are still very imperfect, and doubtless chemistry, which has been mainly instrumental in bringing the business to its present advancement, can surmount the existing difficulties.

During the last year, an investigation of the influence of various manures and fertilizers upon the sugar beet, was carried out in Heidelberg, with immense labour; and, but for a few circumstances, it would have proved of considerable value. Plots of turnips were treated with weighed quantities of all the fertilizers in common use, and the results were determined by careful weighings and analyses of the produce. Unfortunately the experiments were conducted on too small a scale. Each plot contained but eight turnips, and consequently the tables accompanying the account of the trials are valueless, since a little error of observation, or accident affecting slightly the results on eight turnips, would become very considerable when multiplied by the number of these little plots in an acre; and the results are of no account unless applicable to the quantities actually employed in practice. A repetition of the experiments, with the needful improvements, is promised, and I need not communicate any of the results yet obtained, as they are liable to correction. It is, though, from this kind of researches, faithfully carried out, that progress in the knowledge of the wants and nature of agricultural plants may be expected. They are rather the work of societies than of individuals, and why their importance is not appreciated by any of the numerous agricultural associations of the United States, is hardly to be comprehended. Certainly there is no lack of pecuniary means—it has been thought there is no want of intelligence!

In Heidelberg I met the great chemist, Bunsen, in his newly finished laboratory—the largest and finest in existence, adapted for fifty students. Bunsen has not occupied himself specially with agricultural chemistry; but the influence of his genius and labours is felt in all departments of chemical science, and particularly in chemical analysis. His laboratory is one of the best on the continent for beginners in chemistry, for he devotes great attention to his pupils. Heidelberg is besides a cheap and delightful place of residence.

I conclude with a translation of a note by Prof. Boethger, of Frankfort, "On the Influence of Water in Cooking Vegetables," which I find in an agricultural paper:—

"If one portion of vegetables be boiled in pure (distilled or rain) water, and another in water to which a little salt has been added, a decided difference is perceptible in the taste and odor, and especially in the tenderness of the two portions. Vegetables, boiled in pure water, are vastly inferior in flavour. This inferiority may go far, in case of onions, that they are almost entirely destitute of odour or taste, though when cooked in salted water they possess, in addition to the pleasant salt taste, a peculiar sweetness and a strong aroma. They also contain more soluble matter than when cooked in pure water. Water which contains 1,420 of its weight of common salt, is far better for cooking vegetables, than pure water, because the salt hinders the solution and evaporation of the soluble and flavouring principles of the vegetables. This explains the advantage of the general use of salt in cooking, and the impossibility of correcting, by subsequent additions of solt, the want of flavour in vegetables that have been boiled without it."

WEEDS.

"One year's seeding makes seven year's weeding."

This old proverb conveys an important truth Thoroughly to eradicate plants which one prolific parent will give birth, is a matter of no small trouble or expense. The prolification of some species of of noxious weeds, is almost beyond conception, and when permitted to mature their seeds on soil under cultivation, and well fitted for their support, they are a great evil, and a source of no small trouble and annoyance to the farmer, to say nothing of the injury they inflict upon his crops. It is an excellent plan, therefore to go over the cultivated fields and lands late in autumn, and eradicate every weed that can be found. No matter how small or insignificant may be its appearance, it will assuredly produce seed; and this when disseminated broadcast over the fields by the winds, will germinate, and give birth to a progeny, the perfect eradication of which will take more time and energies of the laborers, than the crops will warrant.

It has been remarked by a moralist that the thistle and mullen are ever the inseparable companions of the sluggard, and it must be confessed that the atmosphere which appears so congenial to the one, appears to possess something in its constitution highly advantageous to the other. Wherever found weeds indicate one of two things:—that the farmer has injudiciously undertaken more than he can accomplish, and do the work well, or they indicate a state of indolence and inactivity.

Some of our agricultural friends are in the habit of gathering up the spurious vegetation of their fields and depositing it in their yards and styes. This is an admirable plan, provided the vegetables have not become mature. In all cases, however, wherever the ripening of the seed has been effected, and the vital principle sufficiently developed to ensure progaga-