

General Hazen's treatise on "Our Barren Lands" demonstrates the indisputable fact that an enormous area of our "Great West" is as unfit for agricultural purposes as the limestone plateaus of Western Australia, and that the task of reclaiming the old garden lands of the Mediterranean peninsula would be far less discouraging than the attempt to irrigate the summer scorched and winter storm-tortured alkali plains of the upper Missouri into anything like farm lands. The best agricultural regions of our National territory were settled before the middle of the present century, and we accordingly find that, in spite of an unparalleled concurrence of circumstances favoring the rapid growth of our population, the average ratio of the increment has gradually decreased. In the two decades from 1830 to 1850, the aggregate population of the United States nearly exactly doubled, by rising from twelve to twenty-three millions. In the next twenty years, the aggregate advanced to thirty-eight millions, and that of 1890 will hardly exceed sixty millions.

But a still more significant fact is the circumstance that in the wealthiest States of the Union the ratio of increase steadily declines in proportion as the average density of population approaches that of civilized Europe. Thus, while the population of the State of New York only just doubled in the course of the forty years from 1840 to 1880, that of Missouri, during the same period, increased more than 500 per cent., that of Texas 600 per cent., and that of Wisconsin more than 3,000 per cent. The inference is obvious. By the time that Missouri and Wisconsin shall be as densely populated as the State of New York, their growth will cease to be anything like phenomenal; the inexorable laws of physical geography will prevent the tide of progress from inundating the deserts of the great central plateau; and Mr. Gladstone's augury is, therefore, an undoubtedly flattering, but not less undoubtedly preposterous, over-estimate.

FELIX L. OSWALD.

VII.

TREE-PLANTING AND ARBOR DAY.

THE setting apart in various States of a day to be observed as Arbor Day—that is, a day on which tree-planting is to be engaged in, especially by the children who attend the public schools—is commendable in the highest degree. Wider knowledge concerning trees, and a true conception of the results that must inevitably follow the ruthless destruction of forests in many sections of the country, cannot be inculcated too diligently in the minds of the growing generation; and every tree planted is something done, even though but a trifle, to offset the ravages committed by the conscienceless wood-choppers who turn the deafest of ears to the passionate entreaty to "spare that tree." As one of our poets has finely said,

"Who does his duty is a question
Too complex to be solved by me,
But he, I venture the suggestion,
Does part of his that plants a tree";

and a fine old English proverb, quoted in Mr. T. F. T. Dyer's recently-published "Folk Lore of Plants," affirms that "He who plants trees loves others besides himself."

In New York State, Arbor Day has been fixed for the first Friday in May. This year (the first time that it is observed) that will fall on the 3d of the month. It is a serious question in the minds of many who are familiar with the general subject of tree-planting whether that is not quite too late a date, at any rate in the vicinity of New York city, for deciduous trees to be set out with a good prospect of thriving, in ordinary seasons. That it may be too early in the northern portions of the State is equally obvious. That there would be a notable advantage in having one day observed for this purpose throughout the State is a patent fact. But the disadvantages growing out of the wide territory embraced in the State, and the varying dates at which the season necessarily "opens," would seem to turn the balance in their favor. As a way out of the difficulty, I would suggest that a fortnight or three weeks, including the latter half of April and the early part of May, be set apart for this purpose, with the understanding that Arbor Day is to be observed on one day

during that period. The selection of the day would have to be left to the teachers; or perhaps the county superintendents of schools could make the selection, so that all over each county the pleasant task of planting trees could be performed simultaneously.

In the case of country schools, there will, of course, be no trouble in determining where the trees shall be set out: the waste places everywhere are crying aloud for them; but in cities, I suppose, there must be something in the way of coöperation between the various schools, whereby, through committees from each and with the consent of the park authorities, the planting, which is to be the significant feature of Arbor Day, may be done in the public parks.

JAMES R. AUSTEN.

VIII.

SPITE IN TEXT-BOOKS.

INTENSELY bitter as are some men's political prejudices, it seems scarcely credible that they would find expression in scientific treatises and text-books; yet so they have in several notable instances. Dr. Johnson could not refrain from letting his bile overflow into his dictionary, as we see by his definitions of "excise" and "pension." The former is defined to be "a hateful tax levied upon commodities, and adjudged, not by the common judges of property, but wretches hired by those to whom excise is paid"; and "pension," to be "an allowance made to any one without an equivalent. In England it is generally understood to mean pay given to a state-hireling for treason to his country." One of the last places in which one would expect to meet with such an exhibition of temper is among the dispassionate definitions of a dictionary; and the Doctor would hardly have been betrayed into it had he dreamed that, only a few years later, he himself would accept a pension from George III.

But Johnson, "a good hater," though he was an ultra-Tory, has been surpassed by William Cobbett. In his English grammar, Cobbett contrives skilfully to drag in his political opinions, not occasionally, but again and again, and makes his examples and illustrations subservient to his likes and dislikes on almost every page. Thus, as an example of the time of an action expressed by a verb, he gives this: "The Queen (*i. e.* Queen Caroline) *defies* the tyrants, the Queen *defied* the tyrants, the Queen *will defy* the tyrants." To illustrate the hyphen, we have: "the never-to-be-forgotten cruelty of the borough tyrants"; under the possessive case: "Oliver the Shy's evidence, Edwards the government's spy." Nouns of number and multitude are thus grouped together: "Mob, Parliament, Rabble, House of Commons, Court of King's Bench, den of thieves, and the like." "You may use," he tells his pupil, "either a singular or plural verb with a noun of multitude, but you must not use both numbers in the same sentence. You may say, for instance, of the House of Commons, *they* refused to hear evidence against Castlereagh, when Mr. Maddox accused him of having sold a seat"; or, *it* refused to hear evidence. It is wrong to say: "Parliament *is* shamefully extravagant, and *they* are returned by a gang of rascally borough-mongers." As a specimen of faulty syntax, Cobbett gives: "The Attorney-General Gibbs, whose malignity induced him to be extremely violent, and was listened to by the judges."

But the bitterness of Johnson's, and even of Cobbett's, political prejudice pales before that of General Hill, the Confederate officer, as manifested in a text-book published by him just before the late Civil War. There are few persons whose ingenuity would not be puzzled and baffled in an attempt to introduce sectional feelings and personal spite into the neutral region of pure mathematics; but General Hill actually succeeded in conveying covert sneers by algebraical symbols, and insinuating contempt through mathematical problems. In a text-book, called the "Elements of Algebra," strongly recommended by Professor Jackson, of the Virginia Military Institute (afterwards the famous rebel general, "Stonewall" Jackson), a number of problems are given, of which the following are specimens: "A Yankee mixes a certain number of wooden nutmegs, which cost him one-fourth of a cent apiece, with real nutmegs worth four cents apiece, and sells the whole assortment for \$45, and gains \$3.75 by the fraud. How many wooden nutmegs were there?" "At the