



NORTH-CAROLINA GAZETTE.

FRIDAY, JULY 17, 1818.

Vol. XIX.

No. 282.

MR. MADISON'S ADDRESS,

Continued from our last.

Other views of the yeomanry of nature coincide with the preceding. There is a known tendency in all organized beings to multiply beyond the degrees necessary to keep up their actual numbers. It is a wise provision of nature. 1. to guard against the failure of the species; 2. to afford, in the surplus, a food for animals whether subsisting on vegetables, or on other animals which subsist on vegetables. Nature has been equally provident in guarding against an excessive multiplication of any one species which might too far encroach on others, by subjecting each, when unduly multiplying itself, to be arrested in its progress by the effect of the multiplication. 1. in producing a deficiency of food; and where that may not happen, 2. in producing a state of the atmosphere unfavorable to life and health. All animals, as well as plants, sicken and die in a state too much crowded. It is the case with our domestic animals of every sort, where no scarcity of food can be the cause. To the same laws mankind is equally subject. An increase, not consistent with the general plan of nature, arrests itself. According to the degree in which the number thrown together exceeds the due proportion of space and air, disease and mortality ensue. It was the vitiated air alone which put out human life in the crowded hole of Calcutta. In a space somewhat enlarged, the effect would have been slower, but not less certain. In all confined situations from the dungeon to the crowded workhouses, and from these to the compact population of overgrown cities, the atmosphere becomes, in corresponding degrees, unfitted by reiterated use, for sustaining human life & health. Were the atmosphere breathed in cities not diluted and displaced by fresh supplies from the surrounding country, the mortality would soon become general. Were the surrounding country thickly peopled and not refreshed in like manner, the decay of health, though a later, would be a necessary consequence. And were the whole habitable earth covered with a dense population, wasteful maladies might be looked for, that would thin the numbers into a healthy proportion.

Were the earth in every productive spot, and in every spot capable of being made productive, appropriated to the food of man; were the spade substituted for the plough, and all animals consuming the food of man, or food for which human food might be substituted, banished from existence, so as to produce the maximum of population on the earth, there would be more than an hundred individuals, for every one now upon it. In the actual population of many countries, it brings on occasional epidemics to be traced to no other origin than the state of the atmosphere. Increase the numbers ten or twenty fold, and can it be supposed that they would at any time find the breath of life in a condition to support it; or if that supposition be admissible when limited to a single country, can it be admitted, when not only the contiguous countries, but the whole earth was equally crowded?

Must we then adopt the opinion entertained by some philosophers, that no variation whatever in the numbers and proportions of the organized beings belonging to our globe, is permitted by the system of nature: that the number of species and of individuals, in the animal and vegetable empires, since they attained a destined complement, has been, and must always be the same; that the only change possible, is in local augmentations and diminutions which balance each other, and thus maintain the established and unalterable order of things?

This would be the opposite extreme to that which has been rejected. Man though so similar in his physical constitution to many other animals, is essentially distinguished from all other organized beings, by the intellectual and moral powers with which he is endowed. He possesses a reason and a will, by which he can act on matter organized and unorganized. He can, by the exercise of these peculiar powers, increase his subsistence, by which his numbers may be increased beyond the spontaneous supplies of nature; and it would be a reasonable conclusion, that making as he does in his capacity of an intelligent and voluntary agent, an integral part of the terrestrial system, the other parts of the system are so framed as not to be altogether, unsusceptible of his agency, and unalterable in its effects.

This reasonable conclusion is confirmed by the fact, that the capacity of man, derived from his reason and his will, has effected an increase of particular plants and animals conducive to an increase of his own race; and a diminution of the numbers, if not of the species of plants and animals displaced by that increase.

Most, if not all of our domesticated animals, probably exceed the numbers, which without the intervention of man, would be their natural amount; whilst the animals living on, or interfering with them, are proportionably reduced in their numbers.

The case is the same with cultivated plants. They are increased beyond their natural amount; and banish or propor-

tionally reduce such as interfere with them.

Nor can it be said that these changes made by human art and industry in some regions, are balanced by corresponding changes made by nature, in other regions. Take for examples, the articles of wheat, rice, millet and maize, which are the chief food of civilized man; and which are now spread over such immense spaces. It is no possible to regard them, as occupying no more than their original and fixed proportions of the earth; and that in other parts of it, they have disappeared in the same degree in which they are thus artificially extended. These grains belong to the torrid & temperate zones only; & so great a portion of these zones have been explored, that it is certain, they could not have been displaced from other parts of the globe, in the degree in which they abound where they are now cultivated, and where it is certain they owe their abundance to cultivation. There must consequently be an absolute increase of them produced by the agency of man.

Take more particularly for an example, the article of rice, which constitutes so large a portion of human food. The latitudes to which its growth is limited by the nature of the plant, are for the most part so well known, that it may be assumed for an unquestioned fact, that this grain cannot always have prevailed any where, in the extent in which it is now cultivated. And it is equally certain, that the vegetable productions belonging to the same climates, which must have been displaced by its cultivation, have not received an equivalent introduction & extension elsewhere.

It is remarkable that the vegetable productions most extensively used as human food, are but little if at all found in their indigenous state; whether that state be the same as their present one, or a state from which they were improvable into their present state. They seem, indeed, not likely to flourish extensively in situations not prepared by the hand of man. The Potatoe so recently brought into use, and now spreading itself over so great a surface, can barely be traced to a native state in the mountains of Chili: nor can it be believed that previous to its adoption by man, it ever existed in the extent to which cultivation is now carrying it.

These views of the subject seem to authorize the conclusion, that altho' there is a proportion between the animal and vegetable classes of beings on our globe, and between the species in each class, with respect to which nature does not permit such a change as would result from a destruction of the animals and vegetables not used by man; and a multiplication of the human race, and of the several species of animals and vegetables used by it, sufficient to fill up the void; yet that there is a degree of change which the peculiar faculties of man enable him to make; and by making which his fund of subsistence & his numbers, may be augmented; there being at the same time, whenever his numbers and the change exceed the admitted degree, a tendency in that excess to correct itself.

Could it however be supposed that the established system and symmetry of nature, required the number of human beings on the globe to be always the same; that the only change permitted in relation to them, was in their distribution over it; still, as the blessing of existence to that number would materially depend on the parts of the globe on which they may be thrown; on the degree in which their situation may be convenient or crowded; and on the nature of their political and social institutions; motives would not be wanting to obtain for our portion of the earth, its fullest share, by improving the resources of human subsistence, according to the fair measure of its capacity. For, in what other portion of equal extent will be found climates more friendly to the health, or congenial to the feelings of its inhabitants? In what other, a soil yielding more food with not more labor? And above all, where will be found institutions equally securing the blessings of personal independence, and of social enjoyments? The enviable condition of the people of the United States, is often too much ascribed to the physical advantages of their soil and climate, and to their uncrowded situation. Much is certainly due to these causes—but a just estimate of the happiness of our country, will never overlook what belongs to the fertile activity of a free people, and the benign influence of a responsible government.

In proportion as we relax the hypothesis which makes the aggregate number of mankind unsusceptible of change, and believe that the resources of our country may not only contribute to the greater happiness of a given number, but to the augmentation of the number enjoying a greater happiness, the motives become stronger for the improvement and extension of them.

But, whilst all are sensible that agriculture is the basis of population and prosperity, it cannot be denied that the study and practice of its true principles have hitherto been too generally neglected in the United States; and this state has at least its full share of the blame. Now only for the first time, notwithstanding several meritorious examples of earlier date, a general attention seems to be awa-

kened to the necessity of a reform. Patriotic societies, the best agents for effecting it, are pursuing the object with the animation and intelligence which characterize the efforts of a self-governed people, whatever be the objects to which they may be directed.

Among these promising institutions, I cannot glance at the names of those composing that of Albemarle, without being assured, that its full quota of information will be furnished to the general stock. I regret only, that my own competency bears so little proportion to my wishes to co-operate with them. That I may not be thought, however, deficient in good will, as well as in other requisites, I shall venture on the task, a task the least difficult, of pointing out some of the most prevalent errors in our husbandry, and which appear to be among those which may merit the attention of the society, and the instructive examples of its members.

I. The error first to be noticed is that of cultivating land, either naturally poor or impoverished by cultivation. This error, like many others is the effect of habit, continued after the reason for it has failed. Whilst there was an abundance of fresh and fertile soil, it was the interest of the cultivator to spread his labor over as great a surface as he could. Land being cheap and labor dear, and the land co-operating powerfully with the labor, it was profitable to draw as much as possible from the land. Labor is now comparatively cheaper & land dearer. Where labor has risen in price fourfold, land has risen tenfold. It might be profitable, therefore, now to contract the surface over which labor is spread, even if the soil retained its freshness and fertility. But this is not the case. Much of the fertile soil is exhausted, and infertile soils are brought into cultivation; and both co-operating less with labor in producing the crop, it is necessary to consider how far labor can be profitably exerted on them; whether it ought not to be applied towards making them fertile, rather than in further impoverishing them, or whether it might not be more profitably applied to mechanical occupations, or to domestic manufactures.

In the old countries of Europe, where labor is cheap, and land dear, the object is to augment labor, and contract the space on which it is employed. In the new settlements taking place in this country, the original practice here may be rationally pursued. In the old settlements, the reason for the practice in Europe is becoming daily less applicable; and we ought to yield to the change of circumstances, by forbearing to waste our labour on land, which, besides not paying for it, is still more impoverished, and rendered more difficult to be made rich. The crop which is of least amount, gives the blow most mortal to the soil. It has been a very rare thing to see land under the plough, not producing enough to feed the ploughman and his horse; and it is in such cases, that the death-blow is given. The goose is killed, without even obtaining the coveted egg.

There cannot be a more rational principle in the code of agriculture, than that every farm which is in good heart, should be kept so; that every one not in good heart should be made so; and that what is right as to the farm generally, is so as to every part of every farm. Any system, therefore, or want of system, which tends to make a rich farm poor, or does not tend to make a poor farm rich, cannot be good for the owner; whatever it may be for the tenant or superintendent, who has a transient interest only in it. The profit, where there is any, will not balance the loss of intrinsic value sustained by the land.

II. The evil of pressing too hard upon the land, has also been much increased by the bad mode of ploughing it. Shallow ploughing, and ploughing up and down hilly land, have, by exposing the loosened soil to be carried off by rains, hastened more than any thing else, the waste of its fertility. When the mere surface is pulverized, moderate rains on land but little uneven, if ploughed up and down, gradually wear it away. And heavy rains on hilly land ploughed in that manner, soon produce a like effect, notwithstanding the improved practice of deeper ploughing. How have the beauty and value of this red ridge of country suffered from this cause? And how much is due to the happy improvement introduced by a member of this society, whom I need not name, by a cultivation in horizontal drills with a plough adapted to it? Had the practice prevailed from the first settlement of the country, the general fertility would have been more than the double of what the red hills, and indeed all other hilly lands now possess; and the scars and sores now defacing them would no where be seen. Happily, experience is proving that this remedy, aided by a more rational management in other respects, is adequate to the purpose of healing what has been wounded, as well as of preserving the health of what has escaped the calamity. It is truly gratifying to observe how fast the improvement is spreading from the parent example. The value of our red hills, under a mode of cultivation which guards their fertility against

wasting rains, is probably exceeded by that of no uplands whatever: and without that advantage they are exceeded in value by almost all others. They are little more than a lease for years.

Besides the inestimable advantage from horizontal ploughing, in protecting the soil against the wasting effect of rains, there is a great one in its preventing the rains themselves from being lost to the crop. The Indian corn is the crop which most exposes the soil to be carried off by the rains; and it is at the same time the crop which most needs them. Where the land is not only hilly, but the soil thirsty, (as is the case particularly throughout this mountainous range) the preservation of the rain as it falls, between the drilled ridges, is of peculiar importance; and its gradual scuttling downwards to the roots, is the best possible mode of supplying them with moisture. In the old method of ploughing shallow, with the furrows up and down, the rain as well as the soil was lost.

III. The neglect of manures is another error which claims particular notice. It may be traced to the same cause with our excessive cropping. In the early stages of our agriculture, it was more convenient and more profitable, to bring new land into cultivation, than to improve exhausted land. The failure of new land has long called for the improvement of old land; but habit has kept us deaf to the call.

Nothing is more certain than that continual cropping without manure, deprives the soil of its fertility. It is equally certain that fertility may be preserved or restored, by giving to the earth animal or vegetable manure equivalent to the matter taken from it; and that a perpetual fertility is not, in itself, incompatible with an uninterrupted succession of crops.—The Chinese, it is said, smile at the idea, that land needs rest, as if like animals it had a sense of fatigue. Their soil does not need rest, because an industrious use is made of every fertilizing particle, that can contribute towards replacing what has been drawn from it. And this is the more practicable with them, as almost the whole of what is grown on their farms is consumed within them. That a restoration to the earth of all that annually grows on it, prevents its impoverishment, is sufficiently seen in our forests; where the annual exuviae of the trees and plants replace the fertility of which they deprive the earth. Where frequent fires destroy the leaves and whatever else is annually dropped on the earth, it is well known that the land becomes poorer; this destruction of the natural crop, having the same impoverishing effect, as a removal of a cultivated crop. A still stronger proof that an annual restoration to the earth of all its annual product will perpetuate its productiveness, is seen where our fields are left uncultivated and unpastured. In this case the soil, receiving from the decay of the spontaneous weeds and grasses more fertility than they extract from it, is for a time at least improved, not impoverished. Its improvement may be explained, by the fertilizing matter which the weeds and grasses derive from water and the atmosphere, which forms a net gain to the earth. At what point, or from what cause, the formation and accumulation of vegetable mould from this gain, ceases, is not perhaps very easy to be explained. That it does cease, is proved by the stationary condition of the surface of the earth in old forests; and that the amount of the accumulation varies with the nature of the subjacent earth, is equally certain. It seems to depend also on the species of trees & plants which happen to contribute the materials for the vegetable mould.

But, the most eligible mode of preserving the richness, and of enriching the poverty of a farm, is certainly that of applying to the soil a sufficiency of animal and vegetable matter in a putrified state, or a state ready for putrefaction; in order to procure which, too much care cannot be observed in saving every material furnished by the farm. This resource was among the earliest discoveries of men living by agriculture; and a proper use of it has been made a test of good husbandry, in all countries, ancient and modern, where its principles and profits have been studied.

Some farmers of distinction headed by Tull, supposed that mere earth, in a pulverized state, was sufficient, without manure for the growth of plants; and consequently that continued pulverization would render the soil perpetually productive; a theory, which never would have occurred to a planter of tobacco or of Indian corn, who finds the soil annually producing less and less, under a constant pulverizing course. The known experiment of Van Helmont seemed to favor the opposite theory, that the earth parted with nothing towards the plants growing on it. If there were no illusion in the case, the earth used by him must at least have been destitute of vegetable mould: for in an experiment by Woodhouse, a garden mould was diminished in its weight by a plant which grew in it. And the latest chemical examinations of the subject coincide with the general opinion of practical husbandmen, that the substance of plants partakes of the substance of the soil.

The idea is indeed very natural that

vegetable matter which springs from the earth, and of itself returns to the earth, should be one source at least of the earth's capacity to reproduce vegetable matter.

BY AUTHORITY.

An act to suspend, for a time, the sale or forfeiture of lands for failure in completing the payment thereon.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the operation of the sixth condition of the fifth section of the act, entitled "An act to amend the act, entitled "An act providing for the sale of the lands of the United States northwest of the Ohio and above the mouth of the Kentucky river," be, and the same is hereby suspended until the 31st day of March next, in favor of the purchasers of public lands, at any of the land offices of the United States:— Provided, That the benefit of this act shall not be extended to any one purchaser for a greater quantity than six hundred and forty acres of land.

H. CLAY, Speaker of the House of Representatives. JOHN GALLARD, President of the Senate, pro tempore, April 16, 1818.—Approved. JAMES MONROE.

An act concerning tonnage and discriminating duties in certain cases.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That so much of the several acts imposing duties on the tonnage of vessels in the ports of the United States, as imposes a discriminating duty between foreign vessels and vessels of the United States, is hereby repealed, so far as respects vessels truly and wholly belonging to the subjects of the King of the Netherlands; such repeal to take effect from the time the government aforesaid abolished the discriminating duties between her own vessels and the vessels of the United States arriving in the ports or places aforesaid.

Sec. 2. And be it further enacted, That so much of the several acts imposing duties on goods, wares and merchandise imported into the United States, as imposes a discriminating duty between goods imported into the United States, in foreign vessels and in vessels of the United States be, and the same is hereby repealed, so far as the same respects the produce or manufactures of the territories in Europe, of the King of the Netherlands, or such produce and manufactures as can only be, or most usually are, first shipped from a port or place in the kingdom aforesaid, the same being imported in vessels truly and wholly belonging to subjects of the King of the Netherlands; such repeal to take effect from the time the government aforesaid abolished its discriminating duties between goods, wares and merchandise, imported in vessels of the United States, and vessels belonging to the nation aforesaid.

April 20, 1818.—Approved, JAMES MONROE.

By the President of the United States.

WHEREAS, by an act of Congress, passed on the 25th of March, 1804, entitled, "An Act making provision for the disposal of the public lands in the Indiana Territory, and for other purposes," and an Act passed the 3d of March 1805, entitled, "An Act supplementary to the act, entitled, an act making provision for the disposal of the public lands in the Indiana Territory," and an act passed on the 25th of April, 1808, entitled, "An Act supplemental to an act regulating the grants of lands in the Territory of Michigan," the President of the United States is authorized to cause the lands in the land district of Detroit to be offered for sale when surveyed; and whereas a part of the said lands have been surveyed; Therefore, I, JAMES MONROE, President of the United States, in conformity with the said acts, do hereby declare and make known, that public sales for the disposal (agreeably to law) of the said lands, shall be held at Detroit, in Michigan Territory, viz:

On the first Monday in July next, for the lands contained in ranges 9, 10, 11, 12, and 13, south of the base line; on the first Monday of September next for the lands contained in ranges 13, 14, 15, 16 & 17, north of the base line; and on the first Monday in November next, for the lands contained in ranges 9, 10, 11, and 12 north of the base line, excepting such lands as are, or may be reserved in said district, by law, for the support of schools, and for other purposes. The sales shall continue open for two weeks and no longer, and shall commence with the first section of the lowest number of townships and ranges, and proceed in regular numerical order.

Given under my hand at the City of Washington, the thirty first day of March, one thousand eight hundred and eighteen.

JAMES MONROE, By the President, JOSIAH MEIGS, Comm'r of the General Land Office.

\* Col. T. M. Randolph.