THE SOUTHERN PLANTER,

Devoted to Agriculture, Horticulture, and the Household Arts.

Agriculture is the nursing mother of the Arts.—*Xenophon.*

Tillage and Pasturage are the two breasts of the State.—*Sully.*

FRANK: G. RUFFIN, Editor. P. D. BERNARD, Proprietor.

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ADDRESS OF JOHN R. EDMUNDS, ESQ.

Before the Virginia State Agricultural Society, November 3, 1853.

Mr. President and Gentlemen:

The Executive Committee have invited me to deliver the first annual address on this occasion. The Constitution of our Society prescribes the subjects of this address, and limits them to practical agriculture or science as auxiliary to agriculture. It is to me a source of sincere regret, that the task was not devolved upon a more competent person. Bnt it was not for me to evade the duties it involved, nor to shun the responsibility it imposed—to shrink from the post which they have assigned, and to display a lukewarm zeal in this noble effort to promote the prosperity of our State by advancing its agricultural interest. Impelled by a high sense of professional and public duty, and by that consideration alone, I may justly claim the indulgence of the Society for its imperfect discharge.

The extent of our territory and its undeveloped resources present their difficulties at the first view. Our State stretches from the Ocean on the East, to the tributaries of the Mississippi on the West, embracing the Atlantic slope, the intermediate valley, and passing the Alleghanies it spreads out upon the valleys of the western waters, containing the great elements of national wealth in its mineral treasures, manufacturing power, outlets for commerce, diversity of soil, and in its capacity for varied agricultural products. It combines the leading divisions of agriculture in farming, planting and grazing.

With this extensive territory and variety of soils, we are commencing an era of improved agriculture. Upon the fertility of the soil depends our success—and upon the constituent elements of the soil rests its fertility. A knowledge of the general origin and composition of the soil must form the first foundation on which to build. But here science has not shed its light upon our pathway. No geological report, with accompanying maps of surveys of the State, has been published in such form as to be accessible to the farmers. They are not informed in regard to the general formation and prevailing strata of their own counties, nor the probable origin of their soils. The soils of the State have been but little studied and accurate analyses have not developed the causes of sterility in extensive areas, embracing large portions of many counties.

Our soils are formed from the decomposed fragments of the rocks on which they lie, or of other rocks usually at no great distance. They consist very nearly of the same substances as the rocks themselves from which they are formed; and we may not expect any ingredient in large quantity, which the rocks themselves did not contain. Geologists have given the names of stratified and unstratified to the leading and grand divisions of these rocks. The rocks of the second class differ widely in their composition, and will give rise to soils partaking of their distinctive characteristics. Thus, the granite contains within its felspar and mica considerable quantities of potash and soda, but there is scarcely any lime, and no phosphates beyond mere traces. Some varieties of granite do contain these substances in fair proportions, but for the most part, there is very little of either.—[Norton's Elements, 202.] Soils formed from their decomposition may contain potash of soda, but we may with great certainty anticipate a deficiency of lime and the phosphates. So, in the same leading division, some specimens of the trap rock contain a proportion of lime, calculated as carbonate, equal to 20 per cent. or one-fifth of their weight.—[Prof. Johnson, Edinburgh Quarterly Journal of Agriculture, page 422, 1847-49.] They contain felspar also, from which potash is derived—and soils produced from their decomposition will be found more fertile than those of granitic origin.

The stratified rocks present the same differences of composition; they occupy various positions and inclinations to the earth's surface, but their relative position to each other *is always the same in whatever part of the world they may be found.*—[Norton's Elements, 200.] The same differences will pervade the soils which exist in the various strata. In this general observation, however, we must except those districts where disturbing influences have operated to cover the original rocks by transported materials from some other source—by which the crumbled fragments of other formations have been drifted in vast quantities, by some unknown power, and now overlie the original rocks. Even in this event, an inspection of a district by a practised eye, would immediately detect any foreign deposits, and

determine their character.—[Norton's Elements, 206.]

It is the province of geology to explore the structure of the earth's surface, and to map the various strata and leading features—marking and describing the location and boundaries of the different strata—clearly delineating their extent and position, and showing the extent and location of the drift formation—giving to the farmer a general knowledge of the origin and composition of his soil. To this extent Prof. Norton says geology may instruct: If a farmer "wishes to buy land in a distant region, and has no definite knowledge as to its character, he may determine its probable quality at once from a good geological map. If he has cultivated the soil of some particular formation, till he has come to like it, and to know better how to cultivate it than any other, he may, in the same manner, learn where to find for himself or for his children, the same kind of land, in some other district." [Norton's Elements, p. 206.] It furnishes to the farmer the chart by which he is to be guided in procuring analyses of his soils. If he desires positive information, when the geological map points out the general origin and composition of his soil, the chemist by definitive analysis supplies this demand.

The practical value of this information may be easily explained. All plants consist of organic and inorganic substances—the latter of which constitute their ashes; and are derived solely from the soil. The soil must contain these substances or the plant cannot grow. A very fertile soil contains all of them in considerable quantity. Many soils contain some of them in large quantities, and are deficient, sometimes destitute of others. Thus soils formed from granite may be deficient in lime and the phosphates, whilst those formed from decayed trap may contain lime abundantly. In ignorance of its composition, the farmer may apply the very ingredient that abounds in his soil—the application may be wasted, indeed, it may be injurious, as frequently occurs, where magnesian limestone is applied to lands abounding in magnesia. In closing a very valuable paper on the subject, Professor Johnston remarks: "The consideration of all these facts show how important, in reference even to practical purposes, a knowledge of the geological structure of a country is, how necessary that the general origin and composition of the soil should be ascertained, *and that neither lime nor any other substance should be applied to it, of which the chemical composition is not exactly known.*—[Ed. Jour. Ag, 1849, p. 430.]

Whilst all of the inorganic substances of plants are important to their growth, lime in its various combinations is by far the most useful and most extensively applied. One of the distinctive features in the soils of this State is absence of carbonate of lime in nearly all.* Throughout the tide water region, as a general fact, there is a deficiency of lime in any of its combinations. Wherever this deficiency occurs it is abundant cause for sterility. The former President of this Society has pointed out this deficiency of lime, and has also discovered, that the naturally poor soils of that section contain an acid injurious to the growth of cultivated crops. The application of marl or lime corrects this acidity and supplies the wants of the soil. Before this discovery successive generations had toiled with enduring perseverance, but unrewarded industry. No amount of industry, no display of skill could supply the want of that knowledge. The soils could neither be durably nor profitably improved by putrescent manures. But the application of calcareous manures will give to their worst soils a power of retaining putrescent manures, equal to that of the best, and will cause more productiveness and yield more profit than any other improvement practicable in lower Virginia.—[Ruffin on Cal. Manures, 63, 65.] The wants of the soil are pointed out—the remedy is applied—permanent and profitable improvement follows—the resources of the State are developed—the wealth of the citizen increased—private interests and public motives concur to stimulate the energies of her farmers. These vast benefits flow from the announcement of a single scientific truth, and the extent of its value will scarcely be appreciated by the existing generation.

It is greatly to be regretted, that our information in regard to the district above tide water is so limited and uncertain. There is no geological map to guide our course. Over the different parts of this widely extended area we have every variety of primary stratified rocks, producing soils of every degree of fertility. Many counties are covered by gneiss, and the soils produced from them are light colored, deficient in lime, magnesia, &c. In many others, sandstones are the leading formations, and the soils formed from them are the most sterile perhaps to be found in the State.

After crossing the Blue Ridge, we reach the limestone formation, which occupies the entire length and most of the breadth of the Valley—producing soils generally fertile, some of them eminently so. Successive strata of sandstone, limestone and slate are found in proceeding westward from the Valley, terminating in the great coal formation of the West. By far the greater part of these rich limestone soils are destitute of the carbonate of lime, but are supplied with lime in the form of silicate of lime.—[Professor Gilham.]

There is strong reason for believing that a deficiency of lime in any of its combinations is the chief cause of sterility in the naturally poor soils of all those districts, and that an increased supply is needed in the more fertile soils. For the primary rocks in which quartz, mica and felspar predominate, the sandstones, mica slates, and clay slates, are generally poor

* Ruffin on Calcareous Manures.

in lime. The less vigorous vegetation of the grasses, and clover, the prevalence of pine, broom grass and poverty grass are generally a sufficient indication of the want of lime in a soil. Still, the few experiments with lime have not been of a conclusive or satisfactory character. If applied without analysis to ascertain the composition of the lime, or upon soils without a knowledge of their origin, they were certainly empirical; from which no safe conclusion can be drawn.

Those striking benefits which have followed the application of lime in the tide water district, may be expected on all of the naturally poor soils of other sections. It was the remark of Dr. Anderson, an eminent practical chemist of Scotland, that he had never met with a poor soil in its natural state, which was not benefited in a very great degree by calcareous matter, when administered in proper quantities. Experience, he says, has proved that by this one operation, such poor land may be raised in money value eight times, or from five shillings to forty shillings per acre of annual rent.—[Professor Johnston, Ed. Quarterly Journal, 1847-49, page 526.] The surface of whole districts even, is sometimes doubled or tripled in value by the use of lime alone—barren sandy soils often admit of profitable cultivation after lime has been added.—[Prof. Johnston, Edinburgh Quar. Journal, 1847-49, p. 526.] In the larger portion of the Atlantic slope the leading strata and prevailing flora would indicate the necessity for lime; and, wherever this deficiency exists, abundant observation and experience prove, that it must be supplied as the basis of permanent improvement and profitable agriculture. With the lights before us, we are compelled to state the case hypothetically, and to deduce conclusions from analogy. Science has not yet delineated these areas, and agriculture is still misled by isolated and conflicting experiments.

The members of this Society have assumed the high and noble position of public benefactors. They have commenced the laudable task of improving the agriculture of the State, developing her resources, diffusing scientific and practical information with an energy that must command the admiration and respect of every citizen. Let me urge upon the Society that the information shall be founded upon correct geological maps and accurate chemical analyses. Our public improvements are penetrating the limestone formations in almost every direction, preparing to furnish the supply, as soon as the farmer has learned upon what soils lime may be profitably applied.

I cannot more strongly illustrate the importance of this branch of the subject, than by some reference to the Agricultural Chemistry Association of Scotland.—[Edinburgh Journal of Agriculture, 1845-47, page 254, &c.] This Association numbered near one thousand members, composed of the most intelligent farmers and many of the most distinguished men of science. Its chief object was to afford farmers analyses at a cheap rate—upon the accuracy of which they could rely—of soils, manures and other substances—to carry on investigations bearing on the science and general interests of agriculture—and to diffuse information thus collected by public lectures, familiar letters and conversations. During the first two years of its existence near one thousand analyses were made in the laboratory—seventy public lectures were delivered by Professor Johnston, in different districts of Scotland, to audiences composed chiefly of farmers. Many conversational discussions were held, and many letters transmitted to different sections, accompanied by advice of a practical character, which the analyses were fitted to suggest, or his own observation of the agriculture of different districts rendered valuable. He was aided in his laboratory by several assistants, and in the field by many accurate geological surveys—the composition of the marls, limes, manures, crops and soils was determined by analyses—an intelligent body of farmers gave their aid in accurate and well conducted experiments; and their united efforts led to important results in the judicious improvement of their soils, and in the profitable returns of agriculture. They have elevated agriculture into that position amongst the sciences, in which rational conclusions may be drawn from well conducted experiments: and such, I trust, will soon be the position which the agriculture of our own State shall occupy, by means of the efforts of this Society.

A knowledge of the origin and composition of the soil of those inorganic substances which constitute the ashes of plants, and the composition of the various manures, are all-important to success. But the organic elements of plants—oxygen, hydrogen, carbon and nitrogen—must, also, claim attention. The sources from which plants derive their oxygen and hydrogen are not of practical value to the farmer, as they constitute water, and as oxygen is supplied from so many sources. Carbon and nitrogen are important elements, and the sources from which plants derive their supply must be carefully considered.

The carbon constitutes nearly one-half by weight of all dry vegetable substances. This leading substance of all plants is derived from carbonic acid, in much the largest proportion from the atmosphere which surrounds them, and by assimilation through their leaves. The roots of the plants may furnish a questionable, but at any rate, a small proportion.—[Somerville's Physical Geography, 298; Liebig.] The atmosphere which surrounds their leaves is the great source from which carbon is supplied—from which nearly one-half in weight of all cultivated crops is derived. Yet the atmosphere contains only one-thousandth of its weight of carbonic acid. For this small supply there is a constant struggle by all vegetable creation. It is necessary to the growth of plants, and they will not flourish in an atmos-

phere where the proportion is much reduced. It is rapidly absorbed by forests, as well as growing crops. Quick growing plants, such as grape vines, melons, Indian corn, &c., when in full growth, will absorb as it passes, nearly all the carbonic acid from quite a swift current of air, so that only slight traces of it can afterwards be found.—[Norton's Elements, p. 31.] Crops are more flourishing when the uniform proportion, existing in the atmosphere under ordinary circumstances, is in that body of air immediately surrounding their leaves. They can no more feed upon the carbonic acid in the air above, than they can derive benefit from the manure which has never been hauled from the farm-pen. Hence they thrive better in air that is in motion, and frequently renewed, than in calms.—[Boussingault, 42.] The free access of carbonic acid to their leaves promotes their growth, increases their vigor, and enriches their secretions.—[Farmers' Encyclopædia, 522.] Whatever impedes the free circulation of the atmosphere, or exhausts its carbonic acid in its progress to the growing crops, always produces injurious effects upon the cultivated plants.

It has been observed in Europe, that the crops always yield an inferior produce when surrounded by thick plantations of timber trees, not from the effects of shading, but from their exhausting power upon the carbonic acid of the air.—[Farmers' Encyclopædia, Cuthbert Johnson.] This is the observed effect, even when so large a proportion of the country is open, and when the same density of forests does not occur as prevails with us. Upon many farms there is inexcusable carelessness and neglect in the dense growth of old field pines in the arable fields, neglected hedge rows, ditch and creek banks, sometimes a few acres of native forest and irregular outlines in the clearings. These must not be regarded as merely negligent, but as positively injurious—not only as presenting a slovenly appearance, rendering the cultivation and enclosure of the fields more expensive and laborious, but as diminishing the products of the cultivated surface. The old field pine is particularly liable to this objection. The rapidity of its growth, even upon the poorest soils, the number of its leaves show its exhausting powers upon the atmosphere. The farmer should remember that his crop can thrive no better in an atmosphere deprived of its carbonic acid, than in a soil exhausted of its fertility. If he wishes a striking illustration, let him sow alternate strips of clover with plaster; or of wheat with guano, and leave narrow strips for trial. The plastered clover and the guanoed wheat will soon overtop the unaided portions, exhaust the air of its carbonic acid in passing, and by its greater luxuriance actually injure the unaided strips. The experiment will not present simply a striking contrast—nor injury from shading—but a diminished crop, from mere proximity to a more luxuriant growth.

The injurious effects of these patches of pines may be impressed by another statement. In four thousand pounds of the atmosphere, only four pounds of carbonic acid are intermixed—or rather more than one pound of carbon—sufficient to form about two pounds of dry pine. If, then, we assume the correctness of that theory, which asserts the assimilation of the entire carbon through the leaves of the plants, near four thousand pounds of air must have been entirely deprived of its carbonic acid to form two pounds of dry pine—or a still larger quantity of air partially exhausted. Under such circumstances, a gentle current of air reaches the borders of the cultivated crops, after passing through these patches, of dense pines, to supply that food to the growing crop which is to make near one-half of its weight. It is true that the inequalities of the earth's surface, the varying currents of air, and the known property of these gases to intermingle and pervade each other will again restore the equilibrium, but extensive injury may first ensue. One of the first objects to which the attention of the farmer should be turned, is the removal of all such nuisances in his cultivated fields—leaving nothing but the necessary shade trees for ornament, or for protection to his cattle.

The next organic element of plants is nitrogen. Of this substance the cultivated plants contain small and variable proportions, seldom reaching as high as four per cent. One hundred pounds in the dry state will generally contain about fifty pounds of carbon and about two pounds of nitrogen. The proportions are used merely for illustration, and not for specific information. Small as the relative quantity of nitrogen is, it forms a most important element in plants and manures. It constitutes the nutritious principle of plants—that ingredient which imparts flesh and muscle to animals. An eminent author asserts, as the result of analysis and observation, that the nutritious powers of plants are in proportion to the quantity of nitrogen they contain.—[Boussingault, 387.] This quantity is increased by the supply furnished through the soil on which they grow; hence it becomes a most important subject for our examination.

Whilst it plays so prominent a part in the nutritious principle of food, it is at the same time the eminently enriching quality of all organic manures, 270.—[Boussingault.] It forms the chief fertilizing substance in the guanos, nitrates and compounds of ammonia; in fact, it is the proportion of nitrogen which fixes the comparative value of different manures. It forms four-fifths of the entire atmosphere, constantly surrounding the plants, and presenting an inexhaustible supply—but generally unavailing in its simple form.

Plants receive their nitrogen through their roots, sometimes from the nitrates, but chiefly in the form of ammonia; (Liebig, 70,) the formation of these compounds then becomes the subject of inquiry, as the enriching quality of

the manures depends upon the quantity they contain. Liberal manuring is the basis of all agriculture. It is scarcely necessary to say, that the farmer must rely upon the produce of his own fields and of his animals for the means of maintaining the fertility of his lands, and that all other manures which he can obtain must be regarded as subsidiary to this main source of supply. The materials must be collected and applied with method, system and judgment, and with special regard to the preservation of the compounds of nitrogen, and of those inorganic substances found in the ashes of the plants. But if negligence and waste characterize the operations of the farmer in the use of those materials, there can be no justification for the purchase of guano or other special manures to remedy his improvidence.

In regard to the farm-yard there are two great sources of waste—the drenching effects of rain and the heating of manures. The most of the compounds of nitrogen, and the greater parts of the saline ingredients of manures are soluble. Successive washings leave little more than the woody fibre of the manure, containing scarcely any fertility. Water should never be permitted to run from a farm-pen; the quantity of the materials and the position of the yard should carefully guard against such waste. The extent of the farm-pen and the quantity of materials collected must be a source of no satisfaction, if the fertilizing ingredients have been washed out by successive rains.

The other source of waste is too rapid fermentation, usually called heating of manures. Ammonia is a volatile alkali which is disengaged from all organic manures by rapid fermentation. A single example will be sufficient for illustration. Fresh stable manure in the dry state contains near three per cent. of nitrogen. After heating in a thick stratum, it lost nine-tenths of its weight and contained no more than one per cent. of nitrogen, when reduced to dryness.—[Boussingault, 285.] This degree of heating and extent of loss are rarely permitted, and the extreme case is quoted only as a warning against any degree of rapid fermentation, in which ammonia is lost. The spreading of plaster, marl and ashes between the different layers of the materials of the farm-pen, will, to some extent, aid in fixing the ammonia and improve the quality of the manure. Before hauling out, the heap should be turned once or twice to mix the ingredients more intimately and produce a more uniform decomposition.

The slow and gradual decomposition of manure heaps, containing ashes and calcareous earths, not only retain all of the ammonia and nitric acid which are formed from the materials placed in compost, but an additional quantity is produced by a union between the elements of the manure heap, with the free nitrogen of the atmosphere. In composts thus formed, and frequently turned, after prolonged decomposition, the quantity of nitrogen is found to be greater in the ammonia and nitric acid than was contained in the whole of the substances first placed in compost. [Edinburg Quarterly Journal Ag., 1847-49, 582; Prof. Johnston, Bousingault, 250.] To produce these results, the presence of alkaline or calcareous carbonates is necessary; and the mere heaping of the materials of the farm-pen is not sufficient. [Boussingault, 249.] As these compounds of nitrogen constitute the chief fertilizing ingredient of putrescent manures, the conditions necessary to their formation should exist in the compost heap, and all the means of increasing their quantity, should be carefully adopted.

In pointing out the important requisites in the preparation of farm-pen manures, I do not wish to be understood as recommending the use of all the resources of the farm in that mode. The farm-pen, to some extent, is indispensable. There must be sufficient materials collected to absorb and retain the manures, when any portion of the cattle are penned. Further than this I do not regard the accumulation of vegetable substances economical or judicious.

Among some farmers, there is a prevalent impression that the process of digestion by the cattle adds to the fertilizing ingredients of the farm-pen—in other words, makes the materials of the farm-pen richer. This impression must be removed at once by the statement that nitrogen constitutes both the nutritious principles of food, and the chief fertilizing ingredient of the manures. That portion of the nitrogen which is abstracted in the formation of flesh, and which is exhaled from the animal, is so much withdrawn from the fertility of the manures—to which must be added that portion of the phosphates which forms the bones. A ton of wheat straw, then, must be regarded as containing a larger amount of enriching elements before being fed to cattle, than after the process of digestion.

There is always a large surplus of straw and other materials not needed for farm-pens; and the best disposition of this is to haul it directly to the land you desire to manure, and to spread it broadcast. It is much lighter in hauling when dry, and can be hauled in more convenient seasons. In the process of decay no fertilizing principle is given off to the air; for it is asserted on high authority, as the result of experiment, that a substance containing nitrogen, all of whose parts are in contact with the air, in the process of decomposition, never contributes nitrogen to the confined atmosphere in which it is placed. [Boussingault, 242.] But on the contrary, a portion of the hydrogen evolved in putrefaction unites with the nitrogen of the atmosphere surrounding it, and forms ammonia. The absorbent powers of the soil and of the organic substances are sufficient to retain the ammonia thus formed, until consumed by the growing crop.

The production of ammonia and nitric acid from the nitrogen of the atmosphere by the

decay of organic matter in the soil, is unhesitatingly asserted by Professor Johnston—even when the decomposing substance is purely carbonaceous. [Ed. Quar. Jour. Ag., 1849, p. 584.] It is unnecessary to give the abstruse laws of chemistry upon which these results rest; but to assume the conclusion as correct, that when decomposition of organic matter occurs in contact with air, a small and variable proportion of ammonia and nitric acid are produced at the expense of the free nitrogen of the atmosphere. [Ibid.; see also Boussingault, 312; Mulder, as quoted in Edinb'g Jour. Ag., 1847, p. 47.] In this connection he also states, "in proportion as the presence of lime promotes this decay of vegetable and other organic matter in the soil, in the same proportion does it promote the production of ammonia and nitric acid at the expense of the free nitrogen of the atmosphere; and this may be regarded as one of the valuable and constant purposes served by the presence of calcareous matter in the soil." And, "lime influences in an unknown degree the nitrogen of the atmosphere to become fixed in larger proportion in the soil, in the form of nitric acid and ammonia than would otherwise be the case; and this it does, both by the greater amount of decay or oxidation, which it brings about in a given time, and by the kinds of compounds, which, under its influence, the organic matter is persuaded to form.

I have thought proper to impress upon the Society the fact, that the decomposition of vegetable substances may be as judiciously conducted in the soil, or on its surface, as in the farm-pen—and that there is really no gain from the laborious process of hauling in straw to be drenched with rain and partially fermented, to be hauled out with great additional weight and labor. Even unrotted pine leaves, as raked up from the woods—though on acid soils they produce injurious effects—on soils which have been rendered calcareous, "produce only and always beneficial results; and that is the best as well as the cheapest mode of their application."—[Ruffin's Essay on Cal. Manures, p. 72.] These researches of distinguished chemists are in accordance with the observations of intelligent farmers; and I know of nothing within the range of well conducted experiments that contradict them. It has been long known, that no benefit was derived from ploughing under summer cow-pens: it is explained by the fact that the absorbent powers of the soil can retain the ammonia, and that further decomposition increases it from the air. The observed effects of top-dressing may receive the same solution; as also the shallow covering of manures. The striking effects produced by covering young clover with straw, weeds or other vegetable substances—producing results in the growth and luxuriance of the clover far surpassing the apparent fertility imparted by the covering—may be explained by the same reasoning. Indeed, the ultimate products of decay and putrefaction, whether occurring in the farm-pen or in the soil, are carbonic acid, water and ammonia. [Liebig, 105.] The quantity and quality of the organic matter will be the measure of fertility imparted to the soil in its ultimate decomposition. The greatest return may not be received in the first crop, but the maximum of improvement to the land, and the most successful cropping for a series of years will follow.

It may be proper also to state that the decomposition of the straw, &c., furnishes a constant supply of carbonic acid to the leaves and roots of growing plants, which must not be regarded as trivial or insignificant. For four tons of perfectly dry vegetable matter will yield nearly one-fourth as much carbonic acid as exists in the whole atmosphere over an acre of land. It is constantly rising through their leaves and furnishing an additional supply of food. It also acts in combination with water as a solvent upon the mineral ingredients of the soil, and by this means furnishes an increased supply of the inorganic elements of food to plants. The power of water charged with carbonic acid to dissolve the important minerals was tested by the Professors Rogers, late of our University. By their experiments, the specimens digested in carbonic acid water frequently furnished a sufficient amount of the dissolved mineral to admit of quantitative analysis—reaching in some instances from ½ to 1 per cent. of the whole mass. [Edinbg. Quar. Jour. 1847.]

The other means of fixing the nitrogen of the atmosphere is by a proper rotation of crops. It appears to be a well established fact, that certain plants possess the power of assimilating and fixing the nitrogen of the air, either directly through their roots, or by inducing the formation of a compound of nitrogen which is appropriated. Among these plants the clovers, peas, beans, and all pod bearing or leguminous plants, are the principal. [Boussingault.] The more frequently they come into the rotation, the greater will be the relative assimilation of nitrogen, and the consequent supply of ammonia to the soil. Direct analysis has settled the fact that where those plants come into the rotation, the amount of nitrogen contained in the crops, greatly exceeds that applied to the soil in the whole of the manures, showing an excess per acre, of from thirty to one hundred pounds of nitrogen. [Boussingault.] This valuable property of this class of plants distinguishes them as the best ameliorating crops in any rotation. It is due to that distinctive power of feeding upon the nitrogen of the atmosphere, and preparing it for the food of the cereal, or other marketable crops in the rotation. This class of plants must not be regarded as the means of retaining in the soil what it previously possessed; but as making a large addition to its fertility through this power of supplying nitrogen; and to this must be attributed one of the great benefits derived from the usual field system,

where two clover crops intervene in the five years.

I have now, Mr. President, shown the inexhaustible supply of organic food for plants within the atmosphere which surrounds us—a supply which is constantly kept up by combustion, the decay of organic matter and the respiration of animals—producing an eternal circulation of matter between the earth and air, by those unchanging laws, which an all wise Creator has ordained. Whilst combustion, respiration and decay tend constantly to render the air impure and unhealthy by consuming its oxygen and increasing its carbonic acid, vegetable life is continually absorbing the carbonic acid and throwing back pure oxygen. And so, upon the nitrogen of the atmosphere by means more obscure, but still as certain and invariable, the uniform relation is preserved between the air and earth by means of the vegetable creation. The earth must produce its vegetation to purify the air for the health of man. The winds will sow noxious seed, if the industry of man does not scatter those that are valuable. If you do not sow grasses for stock, the earth will produce its weeds for vermin. The material world has its unchanging laws, and amongst these it is plainly written that a living vegetation must spring up to purify the air, in exact proportion as combustion, respiration and decay proceed. Under the direction of intelligent industry this living vegetation furnishes the food for animals and men. The air can supply nutritious crops as easily as it can noxious weeds. Man has his obligations and duties to perform in respect to the material world—made after the likeness of his Creator, with the lineaments of divinity traced upon him, and a living soul breathed within him, he is sent forth to subdue the earth and to have dominion over every living thing; not with folded hands and in slothful idleness, but in the sweat of his face shall he eat his bread, until he returns unto the earth. If like the sluggard he folds his hands, thistles and briars will spring up around him, and poverty and want will come as an armed man. It was not promised to the slothful, that bounteous crops should crown his sloth, but that thistles and briars, the pests of the vegetable creation, should be the ministering agents to purify the air which he contaminated.

That element of the air which is the nutritious principle of food is also the ingredient of fertility to the soil. We have already seen, that the clover crop has the peculiar power, with the leguminous plants, of assimilating the nitrogen of the air. A good clover crop on every field should be a paramount object with the farmer. A considerable outlay may be justified to bring the land into such condition that it will produce it. A large proportion of the materials for manuring may be profitably applied to aid it. Special manures may be safely purchased to effect this object. When the land has been so far improved as to secure a good stand of clover, plaster is the specific manure for that crop. There are some soils upon which plaster produces no effect. It is stated in Coleman's European Agriculture, (273) that in all England, he had not been able to find a well attested example of its being applied with any benefit whatever. Some soils, marls and limestones, contain it in sufficient quantity to render its application unnecessary—and the mere application of marl or lime may decompose some sulphate in the soil and furnish a sufficient supply. Its general effect is to double the crop of clover; and I cannot more strongly impress upon farmers its great value in producing this result, than by quoting from an eminent French author. Direct analysis shows, where the clover crop is increased one ton by the intervention of plaster, there is a gain of over one hundred pounds of ammonia, and this gain is caused solely by the application of plaster.—[Boussingault, 325] This is more than sufficient to supply a large wheat crop. The plaster has no direct action upon wheat, and it is only through the medium of the clover that its beneficial influence is exerted.

The quantity of plaster applied to the acre in many parts of Europe, varies from 1½ cwt. to 16 cwt., or three-quarters of a ton per acre.—[Boussingault, 320.] It is stated that in a moderately manured soil, as all the world knows, plaster shows no sensible improvement; and that it is to throw away both money and trouble to put plaster upon an unkindly and impoverished bottom.—[Boussingault, 326.] I am not informed of any trials with plaster in such quantities in this State as prevails in European practice. But in many respects the observed effects of the application differ on the two continents. Our soils have not been sufficiently studied, nor has our observation been sufficiently collected and compared, to account for the conflicting results. The effect of plaster is certainly much greater as organic matter accumulates in the soil, and more invariable in its benefits; yet I have frequently seen very remarkable benefits from its use on land so far exhausted that it would not produce ten bushels of corn per acre. The effects of plaster are as stiking upon corn and tobacco as upon the clover, and its benefits seem to increase in proportion to the quantity of unrotted litter applied to the soil, and the longer intervals between the hoe crops. Many of the failures in the use of plaster may have been caused by a want of organic matter in the soil, and where the system heretofore pursued in the State has been one so exhausting, it may be proper to guard the farmer against an erroneous conclusion as to the value of plaster from a single failure. Wherever it succeeds, I regard it in connection with clover, by far the most economical and valuable fertilizer; and that one of the chief benefits of all other applications to our land, is to bring the soil into that condition, which will enable plaster and clover to act efficiently. A good clover

crop contains, with the exception of silica, all of the organic and inorganic elements of a large wheat crop in excess. When this is secured, the farmer has laid the foundation for good wheat crops and for successful improvement.

The Society will perceive, that I am urging a course of practice, which has in view the accumulation of organic matter in the soil in the speediest practicable time. No observing farmer, who has looked to the course of culture in this State from its first settlement, can be ignorant of the great loss of organic matter that has ensued. Successive crops of tobacco on the virgin soil, frequent repetition of the corn crops, followed by wheat or oats, shallow ploughings, excessive grazing, with no intervening ameliorating crops, characterize the outline of our destructive system. We look back to the past, not to express vain regrets, but to gather instruction. Our purpose here is not to scatter reproaches, but to sow the seed of knowledge, to stimulate by encouragement, and to promise to the intelligent application of labor and industry the full fruition of success.

The vegetable matter in the soil tends to retain the soluble saline matter and to keep it from being washed away; the presence in considerable quantity becomes desirable when we wish to maintain a soil in a high state of fertility. The lands may be ploughed much deeper, and the injurious effects of heavy rains to a considerable degree obviated. The most of the fertilizing elements are soluble—many of them highly so. Now, the quantity of water that falls on one acre of land, is one hundred tons for every inch in depth, or three thousand tons for thirty inches, the usual annual fall of water. The solvent power of water, and the annual average quantity which falls, are sufficiently certain for practical purposes. The injury resulting to the land will depend upon its condition, if the land be protected by grasses, the flowing of water over it produces only beneficial effects. Such is the whole theory of irrigation—where in practice the water of streams is turned upon the meadows and made to overflow them for several weeks, then turned off for a few days and again turned upon them for two or three weeks, and this alternate flooding and drying continued for several months, the effect does not depend upon the sediment deposited by the water, though sediment increases the effect, water, without any perceptible sediment, may be successfully used—nor does the success depend upon the want of water, for irrigation is practised in England and Scotland, in the months of December and January, when the soil is saturated with water. The conditions for success are that the land be thoroughly drained and the water be kept flowing and not be permitted to stagnate.—[Low's Practical Agriculture, 574.] The running of water over lands protected by grasses, whether from streams or showers, must be regarded as benefical.

It is when land is cultivated, containing but little vegetable matter, ploughed shallow or left unprotected by clovers and grasses, that heavy rains may be feared. As you deepen the soil and increase the quantity of vegetable matter, less and less injury results, until you reach the extent of modern improvements in the practice of subsoiling and tile draining. Then we are informed when the land is thoroughly drained and subsoiled, so that the rain sinks where it falls and makes its way through near three feet of soil before it escapes, it is a question whether, in ordinary circumstances, it will carry away much more than it brings with it from the air.—[Ed. Quar. Jour. Ag. 1849, 592, Prof. Johnston.] If the quantity which it carried into the tile drains was appreciable, analysis would defect the quantity and solve the doubt; and such a question would never have been stated as matter of doubt by so distinguished a chemist as Prof. Johnson. This furnishes a striking illustration of the absorbent powers of the soil, of the organic matter contained in it. Whatever fertilizing ingredients the rain water may dissolve, when it sinks into the tile drains, the soil has absorbed them so completely as to leave it doubtful, whether the water carries away more than fell from the clouds. What stronger evidence can be furnished in favor of thorough draining and deep ploughing? The manure applied on such a soil becomes fixed and permanent, until consumed by successive crops.

The land should be gradually broken deeper with the turning plough as its fertility increases. In stiff clay soils early fall or winter ploughing is advisable, in order to obtain the pulverizing influence of frosts and freezes. To expose the greatest amount of surface to the action of the air, the furrow slice should incline as near as practicable at an angle of 45 degrees—and to procure this inclination the depth cut should be two-thirds of the width—or in the proportion of eight inches deep to twelve wide.—[Low's Practical Agriculture, p. 218.] If the furrow be too wide for its depth, it will lie too flat and overlap; and if too deep for its width, it will be too near vertical, and will fall back into the furrow. Absolute accuracy cannot be practically attained; but an experienced ploughman will soon learn to gauge his plough when the correct principles are understood. In ploughing matches, the "English are exact and positive in prescribing the depth of the ploughing and the width of the furrow-slice, even *to half an inch*, and insist upon a uniform width throughout the whole."—[Colman's European Agriculture, vol. 1, p. 457.] This is one of the great operations of husbandry, upon which success mainly depends; and that practical accuracy which has been attained, should be held up as a standard for imitation.

The careful preparation of land by ploughing and harrowing is far more important in a sparse population, where labor is high, than a dense population, where it is cheap. With us

labor is high, and agricultural products comparatively cheap. The horse can be more cheaply fed, and may be more extensively and judiciously used. Hence all of those directions for thorough preparation of the land by the plough and harrow, so strongly pressed by intelligent farmers in dense populations apply with far greater force amongst us. And to the same extent in favor of using those machines for labor-saving, which have rendered so conspicuous the inventive genius of our mechanics.

In extensive regions of the State the soil has become so much exhausted by scourging cultivation, that improvement from the resources of the farm is slow and discouraging, even under the direction of experience and judgment. The disappointment of sanguine hopes often chills the enthusiasm of young men, and disgusts them with the efforts at improvement. The foundation for more rapid improvement may be judiciously laid in the use of guano and other special manures. They are powerful auxiliaries to the materials of the farm in its rapid improvement. Though not permanent improvers, of themselves, they furnish the materials in straw and clover for continued improvement. When used for the purpose of improvement, very light grazing ought to follow until the land is so far supplied with organic matter as to bear the loss by grazing. The use of special manures is always more beneficial in connection with manures of the farm.—[Norton's Elements, 107. Transactions of the Highland Agricultural Society, 1848-49; "Special Manures."] The effect of special manures is to cause a heavy production, without supplying all the ingredients which the crops need, and unless ameliorating crops occur, or vegetable litter be supplied, exhaustion of the land will follow their continued use. Many special manures freqnently yield as heavy and as profitable returns as gnano: the nitrates of potash and soda—the compounds of ammonia—sulphate of soda—and those substances in combination with various manures. A series of very carefully conducted experiments with a large number of special manures, embracing the guanos, will be found detailed in the Transactions of the Highland Agricultural Society, 1848-49. They recommend the use of all as top dressings to the grain crops abont the middle of the spring. I bring them to the notice of the Society as the farmers generally have been unable to procure guano in time for use in sowing their wheat; and there is every reason to believe that a spring top dressing is as valuable an application as any other.

In addition to the value of guano as an auxiliary in the improvement of the land, it may be profitably used on all lands of moderate fertility. At least, such is the result of my observation and experience. It hastens the maturity of the wheat and tobacco crop, and this may be regarded as one of its valuable qualities. When applied to tobacco, it produces a marked improvement on the wheat crop that follows—very little inferior to the direct application to the wheat.

There are large areas of the State peculiarly adapted to the crop of tobacco—this has been generally regarded as an exhausting crop; and this may be the usual consequence, but is not the necessary effect. A crop of one thousand pounds of leaf tobacco, which may be regarded as a fair crop from one acre, contains only a pound and a half of the phosphate of lime, seven of malate of lime, about two of the compounds of potash, and no magnesia.—[Boussingault, 166.] A wheat crop from an acre, contains in the grain alone, twelve pounds of phosphoric acid, one of lime, four of magnesia and seven of potash and soda.—[Boussingault, 366.] The wheat crop exhausts far more for the soil than the tobacco crop, but of a different class of ingredients—and hence it succeeds so admirably in following tobacco.

It is stated in Thaer's Principles of Agriculture, as the result of general observation, that four loads of dung per acre will place the land in the same situation as before the crop. That, "the four loads of dung form the chief item of expenditure that must be laid to the tobacco crop; and for this reason the culture of tobacco is most practiced in those places where dung can be obtained at a low price." Even for this small amount of manure no magnesia, and only a small proportion of the phosphates are consumed. This is the result of observation in those portions of Europe where tobacco is cultivated, and where manures are systematically collected and have an exact marketable value. It is obvious, then, that neither general observation nor analysis would indicate this as an exhausting crop; and where exhaustion follows its culture, it may be traced to neglect, or injudicious over-cropping by the planter. It is not a crop that is incompatible with rapid improvement nor profitable agriculture; and extensive districts of the State are better adapted to its cultivation than to any other crop—those formations which contain potash, but are deficient in lime, magnesia and the phosphates—and where the distance from the limestone formations render improvement by lime too expensive. Plaster produces a most striking effect upon the growth of the plant, though it contains no sulphate of lime, and a very inconsiderable amount of sulphate of potash. The benefits of the application are beyond doubt; the mode of its operation is uncertain. The production of tobacco may be greatly extended by the use of unrotted leaves, ashes and guano—without employing the manuring prodncts of cultivated crops—and as it furnishes no materials for manure, it might properly be thrown upon other sources to supply its wants.

No particular rotation of crops can be recommended as suitable to a State so extensive, with soil and productions so diversified—the extended rotations of continental Europe being wholly unsuited to the sparsity of our

population, and the distance from market. We are confined to fewer staple crops for market, and more frequent repetition of the clovers and grasses for improvers. The usual five field system, of one hoe crop, two wheat, and two clover crops, forms one of the best rotations, and is as scourging as can be judiciously practised on any, except soils of high fertility. This is objectionable in the too frequent repetition of wheat and clover. It has been observed in the best wheat countries that the growth of particular classes of weeds, and the multiplication of parasitic plants, as rust, mildew and smut are favored by too frequent alternations of the same, or nearly allied plants. This effect is said to be still more remarkable in the case of insects. Some are proper to peculiar species of plants, and when the crops are not varied, it is often found that a destructive multiplication of these species takes place.—[Low's Practical Agriculture.] The southern border of our State is near the southern boundary of successful wheat culture, and may consequently be more liable to the disasters peculiar to the crop—to those insects and parasitic plants which prove so destructive. It is worthy of experiment whether the wheat crops should not succeed each other at longer intervals, by adopting a more extended rotation. Though we are too far south for the safest and most successful wheat culture, the wheat of a southern climate is more valuable. The wheat of northern latitudes contains from 16 to 20 per cent. of water, whilst that of warm countries has only from 8 to 10 per cent.—[Boussingault, 173.] It is the small proportion of water which ensures its keeping well, and gives command of more extended and various markets for shipment.

The selecting of seed and frequent changes are of great benefit. New varieties of well selected seed brought from other sections of the State, or from other States, are almost invariably more productive when first introduced. In a climate not very favorable to the full maturity and perfection of the wheat, frequent changes from a distance are advisable. It has been observed that the minor varieties of any species of wheat are not permanent in their character, though under conditions, they will remain unchanged for an indefinite period. Under other circumstances, however, they degenerate, and hence particular kinds that were once valued, have now ceased to be so.—[Low's Practical Agriculture, 334.]

Many portions of the State are admirably adapted to grazing and feeding stock; and there is scarcely any portion of it in which a surplus cannot be profitably raised. Under the most unfavorable circumstances in the planting region where tobacco is the chief staple, and requires so much time and attention, the surplus products of the farm may be profitably fed. In respect to the raising of hogs, I have seen it fairly tested by a planter in my own section of the State. He raised over forty-five thousand pounds of pork, nett, for successive years, being more than one thousand pounds for each laborer, and without any diminution of his crops. It is well known, that corn is unrivalled in its quality for fattening, as compared with the cultivated grains, containing by recent analysis near ten per cent. of fatty matter. [Norton's Elements, 131.] Its production may be pushed to almost any extent by an improved agriculture and judicious feeding and grazing; and at the usual range of prices between corn and pork in the country, it is more profitable to feed than to sell—besides it furnishes large resources in feeding for the improvement of the land. It is a continual reproach that hogs are driven from other States and sold in this. No justification can be plead on the score of economy or profit, in the sale of agricultural products to purchase meat. Indeed there is something surpassingly ridiculous in the very suggestion that a strictly agricultural community should purchase its meat from another State.

It is true, we do not possess the humid climate of England and Scotland, nor have such frequent showers of rain, and cannot therefore graze so heavily nor support so large a number of live stock: yet the cutting of two tons of clover from an acre annually, is a good crop in any country. Whenever this can be done, the most improved breeds of stock may be introduced. One of the striking faults in our agriculture is the cultivation of too large a surface. A larger portion should be laid down to grass and devoted to grazing. It is difficult to break through fixed prejudices and habitudes of thought, to remove the conviction that grazing impoverishes land. In all of the older cultivated countries it is one of the well established means of improvement. "Lands after cropping may be laid down to grass and grazed with constantly increasing fertility, but if suffered to become full of weeds, the improvement is slow, if perceptible at all." [Low. Prac. Ag.] This is the leading distinction between cultivated grasses and weeds, and should be remembered. Those plants which are nutritious to animals are fertilizing to lands; and in almost that exact relation; for they derive their nutritious principles and fertilizing powers from the proportion of nitrogen they contain. Beginning with the strictest leguminous plants and clovers, and descending through the grasses to the weeds, the relation between the nutritive and fertilizing powers, is sufficiently well established for practical purposes.

Whilst this State is eminently agricultural, we should not look upon Agriculture as separate and distinct from other great branches of industry. It is not upon that foundation alone that national prosperity is built; but jointly and inseparably upon its commerce and its manufactures. These leading branches of industry constitute the triune embodiment of a State's prosperity, not separate and antagonistic, but one and indivisible.

The progress of Agriculture in this State

has been much retarded by a want of free intercourse among her farmers, and the collection of their united experience. Isolated as they have been, their experience and information depart with them. An Agricultural Society consolidates this experience and transmits it to future generations with constantly increasing knowledge. Such are the vast advantages arising from the collected information of scientific and professional men, that they have expanded from counties to States, from States to nations, and from nations to continents. Europe and America consult together over the winds and currents of the ocean, that commerce may more cheaply and expeditiously interchange the products of agriculture and manufactures. And as a result of the exhibition of the industry of nations, American ingenuity in the construction of the reaper, bids fair to prove victorious over the cheap labor of Europe on their own harvest fields.

Another cause for the slow progress of our Agriculture will be found in the fact, that Virginia has contributed to the service of the Republic, from the first struggles for independence, many of her most distinguished sons. They devoted their intellect, energy and patriotism to the service of our common country. Nor can we repine at this when we behold the result of their labors; when we look over the vast extent of country contained within the limits of the confederacy—stretching from ocean to ocean—embracing an area unsurpassed in fertility, unrivalled in the value and variety of its productions—when we look to its agriculture, commerce and manufactures—its universities, colleges and common schools—its rail roads and canals, binding together distant portions of the confederacy, uniting them in interest, consolidating them in power—when we see its rapid strides to the highest position among the nations of the earth—within the lifetime of a single man—for the Republic is not yet so old as many of its citizens—commanding respect, not by standing armies, nor by its navy; but by the successful development of its mighty resources, the inherent patriotism of its people, the great principle of popular freedom which it represents, and by the historic lustre which surrounds the names of its early heroes and statesmen. In its early struggles, in its onward progress, on every page of its history, the names of Virginia's sons will be found—beginning with his, whom veneration and affection have united in calling the father of his country! They devoted to the service of our common country that ardent patriotism, those mighty intellects and that enduring fortitude, which in the service of their own State might have raised her to the height of material and physical power. But who is there so sordid, that he would exchange the glories of the past, for the material power of the present—who would barter the historic glory of her sons, for any amount of taxable property or any simple enumeration of inhabitants? They achieved for themselves undying fame, that immortality which history can give—their works live after them—and the world gazes in amazement upon the fruits of their toil—in the onward march, the unchecked progress of the great Republic. Virginia gave, not only her sons, but an empire to the common country—and out of that has been carved a State, that has already surpassed her in population and wealth. We may look back upon her noble deeds and her munificence with a glow of pride and a holy desire to emulate; but let not her glory rest in the history of the past, nor her sons ignobly repose upon the monuments of her former greatness.

There is abundant reason to stimulate our utmost energies, to rouse our noblest feelings. Our own colleges are now flourishing, and our University is fulfilling the anticipations of its great projector in his last and noblest gift to the State. Extensive and thorough education will soon meet the demands for its exercise, and be brought to bear upon the great interests of the State. Providence has furnished a fertile soil, a genial climate, countless wealth in the undeveloped mineral resources of the growing west, a noble bay, harbors and roads, navigable rivers and unsurpassed water powers. Look upon her varied agricultural resources, upon her lime, plaster, iron, coal—look upon the market gardens of the tide-water region, and stretch your eyes to the great water shed of the trans-alleghany, until you reach the banks of the beautiful Ohio, the tributaries of the mighty Mississippi, and tell me in what department of industry, in what field of enterprise you cannot engage? What fields for agriculture, what outlets for commerce, what materials and power for manufactures present themselves to our vision, invite our selection. Others have laid the foundations of her fame in heroic deeds and in devoted patriotism. Upon the present generation devolves the duty of advancing her prosperity and her power. That in the development of her material power, fanaticism shall find an impassable barrier, and our peculiar institutions shall find not only security, but a cessation from disturbance. That proprietory rights shall repose on physical power, when the shield of the constitution fails to protect. That the State which held so conspicuous a station in the birth of constitutional, civil and religious liberty, shall possess the vital energy and physical power to give protection and perpetuity to those great principles—that her future position shall not be a reproach to her former achievements, and so, within the broad limits of her borders, the fact shall be illustrated that there is nothing incompatible with her eminent success and durable prosperity. By all the memories of the past, and all the hopes of a glorious future, let us develop those resources that the physical and material greatness of the Old Dominion shall be commensurate with her ancient renown and her historic glory.

For the Southern Planter.

LIMING AND BRINING WHEAT.

Mr. Editor,—In a late number of your valuable paper I noticed a communication, relative to liming and brining wheat in order to prevent smut, signed Thomas Meaux. I have been in the habit of using both lime and brine for the last twelve or fifteen years with perfect success, not having suffered during that period from smut in the slightest degree. In the fall of '51, I seeded several varieties of wheat, viz. half-bearded white, early purple straw, Zimmerman and Woodfin, not using either lime or brine with either variety—in the harvest of '52, the half-bearded white wheat was very materially injured by smut, amounting to at least one-fourth of the crop; the other varieties were entirely exempt.

In the fall of '52, I soaked the whole of my seed wheat in a solution of blue stone, permitting the wheat to remain from eight to twelve hours in the blue stone, then rolling it in lime, in order to test perfectly the merits of the blue stone. I seeded a portion of the half-bearded white wheat that was much injured by smut, also, twenty bushels of Zimmerman wheat obtained from a neighbor that was affected by smut, and in the harvest of '53, though a portion of each variety suffered from joint worm, I am happy to inform you that no part of my crop was in the slightest degree affected by smut. In the solution, I allowed a pound of blue stone to five bushels of wheat. From the little experience I have, I am decidedly of the opinion, that the blue stone wash is a valuable and effectual remedy against smut, as some of my neighbors, seeding the same varieties of wheat, neglecting to use the remedy, suffered a good deal from the disease of which my crop was exempt. The blue stone which I was then, and am now using, can be obtained at the drug stores of either Fredericksburg or Richmond for ten or twelve cents per pound; and I would strongly advise all farmers to test the matter for themselves, feeling confident they will be satisfied with the result.

W. C. J. Rothrock.

Rock Spring, Spottsylvania, Va.

From the New England Cultivator.

GOOD MILCH COWS.

A writer in the Middletown, Connecticut, Sentinel and Witness, urges upon the citizens and farmers of that vicinity, the necessity of forming an association for the improvement of the breed of milch cows—a branch of improvement to which but little attention, has, as yet, been paid in this country.

The great object of the principal breeders of cattle in England, has been to produce animals of fine form and symmetry, which will mature early, and fatten at the least expense, with little or no regard to the milking properties of the females.

From herds bred for this purpose, most of our expensive importations have been made.

The results have proved in the highest degree, beneficial so far as the production of beef is concerned; and in greater or less degree in the milking properties of our native cattle.

But we want a breed of uniform good milkers; and we know of no field, which affords a better prospect of a fair reward, than the breeding of such a race; any individual or association which would undertake the work, would deserve the praise of the country.

The writer above alluded to, says:

"But we cannot ask any one to take shares in this, or any other project where money is wanted, without meeting the question, 'Will it pay?' The answer may be gathered from what follows:

"A good cow, to be worthy of the name, should yield, on an average, for the first 100 days after calving, 7½ quarts at a mess, or 15 quarts per day, amounting to - - - - 1500

For the next 100 days, she should average 5 qts. at a mess, - 1000

For the succeeding 100 days, she should average 4 qts. at a mess, 800

Total number of qts. - 3300

Giving her a respite of 65 days before calving. 3300 qts. of milk, at 3 cts. per quart, is very near - $100

"The cost of keeping may be reckoned as follows:

For pasturage, the season, - $12

2 tons hay, - - - 26

800 lbs. corn meal or its equivalent, 12—50

Leaving a balance of - $50

or one hundred per cent. on the cost of keeping, to pay for attention and expenses, without estimating the value of her calf, or the manure she may make. If the business be done on a *liberal* scale, we think there is a chance for some profit. A cow that will do this may be called *good*.

"It is common for persons keeping cows to say, they will give ten to twelve quarts at a mess; but this is not always true—for not one in ten of the cows in Middlesex county, so far as the writer's knowledge extends, will average so much, for three

successive months, with common feed. True, there are some instances of much greater yield, but the *quality* is not the best.

"A gentleman of undoubted veracity, living within a mile or two of the city, assured me, a few days since, that one of his cows gave fifty-six pounds, (I think it was) equal to twenty-seven or twenty-eight quarts daily. Her milk, however, was inferior to that from his other cows.

"Such cows are rare; but it is from the rarest and the best that a preserve—if I may use the word—of cows for breeding and for the dairy should be selected."

HOW TO USE ELDERBERRIES.

The following recipes arrived last fall—too late in the season to be of service, as the fruit had disappeared from market. We, therefore, reserved the article, and doubt not it will now be acceptable to the readers.—*Ohio Cultivator.*

Mrs. Bateham:—Having served an apprenticeship of three years in the art of cooking, I suppose it will be conceded that I know something about it, and seeing Aunt Fanny's taste for elderberry pie called in question by one of your correspondents, I, therefore, take the liberty of sending you our method of using them. I know some who say they cannot eat them; the reason of this is, they do not know how to prepare them. When cooked by these recipes, they relish them very much.

It is strange that when there is a scarcity of fruit, as there was last year, people will lament the lack of fruit, when behold the fence corners are filled with these valuable bushes, bending down and overloaded with ripe delicious fruit that all goes to waste. You need never to be at a loss for fruit to make pies, for it grows spontaneously. If I ever plant an orchard I intend to plant a goodly number of elderbushes, for I think if they were cultivated they would be much larger. Now you that have enterprise, and are planting out fruit trees of all descriptions, just be wise and take a bit of advice from Cousin John, and while you are planting your orchard, set out a number of elder fruit trees. Remember other fruit is liable to fail, while this is a never-failing fruit.

Elderberry Pie.—Prepare the crust as for apple pie—put the under crust on the platter and pour in the fruit till half an inch deep, then sprinkle two spoonfuls of flour and two of sugar over them, and pour on a tea-cupful of sour cream. Put on the upper crust and bake thoroughly, and you will have a most delicious pie; the best, according to my taste, that can be prepared, and so say nearly all who taste them. A little nutmeg and loaf sugar grated over the pie when first taken from the oven, improves it.

Drien Elder Fruit.—This fruit is very easily dried by spreading in pans under the stove or in the oven, and will make as good pies as though fresh, if they are soaked a few minutes in hot water before using. Some of our neighbors dry them by the bushel, for winter use.

Elderberry Dumplings.—Make the crust as usual and put in the berries as you would other fruit. Boil them fast till the crust is done, then take them up and eat with a dip of white sugar and sour cream, and you will confess they are delicious.

Elderberry Jelly.—Take berries that are fully ripe and remove all unsound ones, pour a little water over them and press the juice out through a strong cloth. Put equal quantities of juice and molasses into the preserving kettle and boil to the consistency of very thick molasses, stirring in three or four drops of lemon oil to the gallon. Put it up in stone or glass jars, and if to keep for the following summer, fit the covers air-tight by using bladder, or white of egg on paper, or sealing them, and put them in a cool place, and they will keep good as long as you wish.

Elderberry Preserves.—These can be made by the same recipes as other fruit, and are the most healthy of any preserves I know of.

Elderberry Wine.—Press out the juice as you would for jelly, and let it stand till it ferments, then add a quart of sugar and a few drops of cinnamon oil to the gallon, and bottle it for use, and you will have an excellent quality of wine.

Elderberries for Menicine.—This fruit when cooked is an excellent diet in cases of the flux. A brother and sister of mine who were severely attacked with this disease last year, were entirely cured by this, without the aid of medicine.

So much for elder fruit.

Mt. Auburn, Shelby county, Indiana.

COMPARATIVE NUTRITIVE VALUE OF AN ACRE OF CABBAGE WITH OTHER CROPS.

The cabbage has lately been chemically examined, in consequence of the failure of the potato with a view to its substitution for that root. It is found to be *richer in muscle forming than any other crop we grow.* It contains more *fibrin* or *gluten*, of which substance the muscles are made, and hence is richer in the material essential to the health, growth and strength of an animal; wheat contains about 12 per cent. of it; beans 25 per cent.; but dried cabbage contains from 20 to 40 per cent. of this all-important material, of which the

principal mass of the animal structure is built.

An acre of good land will produce 40 tons of cabbage; one acre of 20 tons of drum-head cabbage will yield 1500 lbs. of gluten; one acre of Swedes turnips will produce about 30 tons, which will yield 1000 lbs. of gluten; one acre of 25 bushels of beans, will yield 400 lbs. of gluten; one acre of 25 bushels of wheat will yield 200 pounds of gluten; one acre of 12 tons of potatoes, will yield 550 pounds of gluten. Such is the variation in our general crops, as to the amount of this gluten, this special kind of nourishment, this muscle-sustaining principle, which accounts for the preference given by experienced farmers to the cabbage as food for stock and milch cows, although the crop impoverishes the land, which requires much manure to restore it to former fertility.—*Mark Lane Express.*

THE SOUTHERN PLANTER.

RICHMOND, DECEMBER, 1853.

TERMS.

One Dollar and Twenty-five Cents per annum, which may be discharged by the payment of One Dollar only, if paid in office or sent free of postage within six months from the date of subscription. Six copies for Five Dollars; thirteen copies for Ten Dollars, to be paid invariably in advance.

☞ No subscription received for a less time than one year.

☞ Subscriptions may begin with any No.

☞ No paper will be discontinued, until all arrearages are paid, except at the option of the Publisher.

☞ Office on Twelfth, between Main and Cary Streets.

☞ It is indispensably necessary that subscribers ordering a change, should say *from* what, *to* what post office they wish the alteration made. It will save time to us and lose none to them.

NOTICE.

☞ If subscribers do not order a discontinuance of the Planter before the commencement of a new year, or volume, it will be considered as a renewal of their subscriptions, and they will be charged accordingly.

WARNING.

Those of our subscribers who are in arrears must not find fault with us if they find their bills in the hands of collectors for the full amount of our terms, $1 25 per annum. We cannot afford to print a paper at $1 a year and pay twenty per cent. for collecting.

POSTAGE ON THE PLANTER,

When paid quarterly or yearly in advance.

To any part of the United States 1½ cents per quarter, or 6 cents per annum.

THE STATE AGRICULTURAL SOCIETY.

Pressing official engagements prevented our noticing the State Fair in our last issue, which ought, by rights, to have been out on the day the Fair commenced; and now, when a month has elapsed, it may seem too late to do it. For many things it may be, but these have had their day, and no doubt full justice in the papers, both of the city and country. We shall speak of it, therefore, more generally.

The Fair was an era in the history of Virginia agriculture, and, when it is remembered that the Executive Committee had, as a whole, not the slightest experience in such matters, and that only two of them had ever officiated at even so small an affair as a county exhibition, its success may be considered wonderful. That there were defects, both of arrangement and execution, amounting in some instances to apparent neglect, there can be no doubt. But they should be ascribed rather to the novelty of the whole thing than to the negligence of officers or agents, or the carelessness of committees. All did their whole duty, as far as they understood it, and, without fee or reward, strove for the success of the Fair. For instance, it will hardly be credited at the North that some sixteen marshals, gentlemen of standing, selected from various parts of the State, devoted their whole time, some of them both night and day, for four days, to the ar-

rangement of animals and articles, the preservation of order and the protection of the property on the ground, without charge. Yet such is the fact, and still more creditable if it is considered that some of them, as Colonel Haskins of Richmond, and others, had not even the honor of being seen by the crowd, but worked silently and unknown.

It will be observed, in another place, that Richmond contributed not less than ten thousand dollars towards this Fair, in grounds, buildings and police expenses; and we are happy to know that, in a mere business point of view, she lost nothing by it. But, in fact, her object was higher than to fill her coffers by the pageant. Her enlightened Council sought to break down that barrier which has heretofore separated her from the country, and to give as well as receive the benefits of closer intimacy. This object she has gained; but she has done more. She has demonstrated that no man need go north of Virginia for any thing he may want, whether it be an article of merchandise or manufacture, and that we may at once begin to assert our independence without the least danger of inconvenience or fear of loss. Nor, in the pursuit of this object has she begrudged a fair rivalry. Soaring above the narrow views of monopoly, she united with the Society in inviting competition in all things from all quarters, and whilst her money was expended as freely for her rivals as for herself, her hospitality, both public and private, was not stinted to the strangers that overflowed her hotels and thronged her streets. The result was what might have been expected, though few did expect it, and Richmond, casting her bread upon the waters, in the true spirit of wise munificence, has the honor of having enabled the State Agricultural Society to begin a revolution in the public mind of Virginia. Confidence in her resources, in whatever department of art or industry, now animates all breasts, and buoyant hope has taken the place of flat despair. All honor, then, to Richmond.

But other interests had also to be consulted. Strenuous efforts, ceaselessly made, had failed to add members to the Society, and without them nothing could be done. The public spirit of J. Ravenscroft Jones had, it is true, given a brief impulse to the movement, but the mass to be aroused was too large, and the body of the farmers had not shaken off their lethargy. In this crisis the rail roads of the State, with one exception, came to the aid of the Society with a liberality which, as our friends of the Dispatch said, proved that corporations had souls—with a liberality which was neither asked nor expected—and offered to bring people to Richmond for nothing if they would only consent to give two dollars to the Society. It were unjust and uncandid to deny that to this, much more than to enthusiasm in the cause, was due the vast concourse which filled our show grounds. Thousands embraced the offer, and for several days the cars were crowded almost to suffocation. Once assembled, and in sight of so much to look at—so much to astonish them—so much to rejoice at and be proud of, it is no wonder that the feelings, both of the farmer and the townsman, at once mounted to the pitch of excitement and enthusiasm.

The Executive Committee, looking upon exhibitions as only part of the benefits that the Society was capable of rendering, had in their report recommended, in addition to their present executive machinery, the creation of two offices, one that of Secretary, charged with organizing the Society and executing its functions under their direction; the other, a scientific department, which should embrace within its sphere of action an investigation of the laws of chemistry and geology in their bearing upon agricultural pursuits, and, as far as practicable, an application of them to those pursuits. But the means were wanting. The Legislature had turned a deaf, or, at best, a heedless, ear to suggestions made to them as to the proper endowment of the Society, and it was poor in all but zeal. But, taking advantage of the feeling that prevailed, an appeal was now made to the Society to give the funds, either by personal subscription to any amount the respective donors might see fit to bestow, or by a pledge of their counties or towns for such sums as they thought they ought, or could be made, to raise. The appeal was not made in vain—merchant vied with farmer—town with country, until, in two nights, responsible men had paid or pledged the sum of forty-five thousand dollars. This was a creditable performance to whatever

cause it may be attributed. For it may well be pardoned, even if patriotism and public spirit had nothing to do with it, and no higher motive than ostentation be assigned to this very remarkable largess, that one man was unwilling to yield publicly to another in so useful a sacrifice, or that one county was not permitted to appear backward and niggardly in the presence of her profuse sisters.

Except in a few special cases, the money will all be paid in six months. In fact, it was raised in many counties at their succeeding courts, as in Albemarle, Caroline and Nottoway, and perhaps others—and the Virginia State Agricultural Society now stands upon its legs.

As a first step they have selected a Secretary, and they are now preparing to take the second. Let us hope that both may prosper and lead the way to extended usefulness, and let us bespeak for the Executive Committee, in their new and arduous duties, the aid and the indulgence which a liberal public should ever extend to disinterested effort.

On the specialties of the Exhibition we have neither room nor inclination to dilate. Comparisons are odious, and to single out particular subjects of praise when all deserve commendation, might offend more than it would please. In point of horses the Fair was excellent, except that, in our judgment, there was not a first rate saddle horse, either gelding or stallion, on the ground—or rather, we should say, if there was, we did not see him. In point of sheep, of all breeds, and especially of South Downs, the exhibition was equally good. In the matter of hogs it was also good. In cattle, though there were some few splendid specimens, the exhibition, though vastly superior to what we expected, was, on the whole, inferior. This was attributable partly to the desire of many to fill up, as any thing was thought better than a tenantless stall, but more to the fact, that the great cattle regions of the State, the South-west and the North-west, the Valley and the great counties of Fauquier and Loudoun, are not yet accessible by rail road, and their premium animals were not present. Another year, and all these places will have echoed to the whistle of the locomotive, and then we shall have an array from them that will open the eyes of Tide Water and Southern Piedmont. To the gentlemen from other States, who, like Mr. Ramsay M'Henry of Maryland, sent their animals to help us out, we cannot sufficiently express our thanks. Of the implements and the ornaments, the fruits, the flowers, the needle-work and the numerous miscellanies that graced the exhibition, we cannot speak at length, and, therefore, say nothing more than that each and all of them surpassed all expectation.

But what, beyond all these, most delighted us was the appearance of the people, both men and women. It has always been a peculiarity of the more settled parts of the South, that they "put not their faith in" *raiment.* With a frankness and simplicity of manners springing from that self-respect which proceeds from the inner man, they array the outer in garbs which sometimes touch the verge of negligence. They feel too well assured of their proper standing to attempt to secure it by dress, or to maintain it by haughtiness or reserve. These traits were preëminent on this occasion. Decently appareled, dignified in their bearing, bland and kind and cordial *Old Virginia* was indelibly stamped on every manly brow, whilst woman's presence lent its attractions to the scene, and her tenderer graces welled out from her open heart in smiles and beaming looks of joy.

It was, perhaps, in allusion to this, as much as to the general excellence of the display, that Mr. Rives said, that in all he had seen—and he had seen much, both at home and abroad—he had never beheld such a spectacle as Richmond presented on the first of November. We hope he may be spared to witness many like it; and that many more than we had this year will annually come to swell the throng, to invigorate their energies and renew their devotion to Virginia, amid so much that is calculated to stir their strongest emotions. It is related of the late Benj. Watkins Leigh, who hugged his country even closer than his prejudices, that on one occasion, when some one was dilating on the superiority of another State, he interrupted the collocutor with the curt remark, that if any gentleman knew of a State better than Virginia he would thank him to keep the information to himself, as he, at least, had no disposition to acquire it. The

feeling which prompted the remark was narrow, perhaps, but intense, exclusive but ardent, and reminds one of the patriotism of "stout old Samuel Johnson," who had never crossed the British channel. Shall we hesitate to admit that we always sympathized in the feeling, and that it has deepened since the late Exhibition.

As equally characteristic of the people we must not fail to remind our readers that order presided over the whole proceedings. Not a jar disturbed the general harmony—not one shout of revelry or word of quarrel—all was sobriety and harmony, quiet, comity and good humor: the very pick-pockets behaved like gentlemen.

One thing that occurred attracted but little attention, and will not attract much here at home; yet if known abroad it will appear very remarkable: the first premium for good ploughing was awarded to a negro over several white competitors. "Mann Randolph, a slave, the property of Richard Sampson," as the award styled him, made the best furrow—driving four mules without lines, and made forty dollars for himself and not for his master by this meritorious feat. How many white men at the North would have permitted him to enter the lists at all! and how many judges, if he had, would have done him justice! How many negroes are there at the North who have attained to the rank and dignity of ploughmen! What an answer does this simple fact furnish to those who libel us! How illustrative of the kindness which the master feels for the slave, and of the negro's confidence in the white man's justice!

But we close this hurried and imperfect sketch with a word of encouragement and advice to the farmers of the country. From them have sprung the great men of Virginia. They have sired Presidents, and brought up the Pendletons, the Wythes, the Marshalls and the Roanes. They have ruled the political destinies of this great Republic. How happens it that they have done so little for the land?

Shall we offend if we tell them that it is owing to want of energy, of enterprise and of intellect aimed in that particular direction? The time has been when, in many parts of Virginia, it was almost useless to work land, for it did not pay. Then indifference might have been excused by those who reflected that there was nothing so deadening as despair. But that time is past. Lime, and marl, and guano, rail roads, and plank roads and canals, better implements, better processes and better knowledge have paved the way to wealth, and our State should teem with the varied products of the soil. It is the object and the purpose of the Agricultural Society to make it do so. Who doubts the ability if there be the will and the energy? or who will believe that the man who has sense to get to Congress by diligent perusal of a single newspaper can fail to become a respectable farmer? or that the man who prizes the reputation of a hustings politician is dead to the better fame of an intelligent tiller of the soil?

We seek to advance the agriculture of Virginia, and seize the moment of upward tendency for the work. Farmers, will you second it with the active energies of mind and body, that you may again exult in the fame and power of Virginia, assured that

> "The poor rude world
> Hath not her fellow."

PREMIUMS FOR THE PLANTER.

It is the habit with a good many of the editors of agricultural journals to offer premiums for the largest number of subscribers sent in by a given time. It is a very good custom and we propose to improve upon it.

North of us, and to the South, for what we know, every paper is discontinued at the end of the year, unless the subscriber pays for it in advance. This custom will not answer in Virginia. Mr Botts tried it and it failed. It gave dissatisfaction and diminished the subscription list. In fact, to tell the truth, it was a good excuse with many to discontinue the paper.

Now to get our money, and at the same time to extend the circulation of the Planter, we propose to offer premiums to those persons who shall send us the largest number of subscribers by a given time, each collection to count as a new subscription—for instance, if a gentleman obtains twenty-five new names and collects five dollars from one man, two dollars from another, and one dollar from a

third, then he will be credited as if he had obtained thirty-three subscribers. His account will stand 25+5+2+1=33.

The subjects of these premiums are stock of improved breed. We have purchased of Gen. Bernard Peyton of Albemarle, the very superior thorough bred Devon calf that was seen and admired by so many at the late Fair. We gave fifty dollars for him. We have also obtained from Mr. Colston of Albemarle, a buck of the South Down stock, seven-eighths pure imported South Down, one-eighth Bakewell, and we gave twenty-five dollars for him. We have also obtained of Mr. Lewis D. Crenshaw of Richmond, a pig by his uncommonly fine Delaware hog, that took forty dollars in premiums at the Fair, (he being estimated to be the best boar of his own class and of any other breed,) out of a very superior Chester sow; and from Dr. John R. Woods of Albemarle, a sow pig out of his sow that also took the first premium in her class. This will make a pair of pigs that can be bred together without any fear of injuring the progeny. They will be worth about twelve dollars and fifty cents.

We consider the Devon the best breed in the world for the yoke, and equal to any for butter. We think them also the best cattle for ninety-nine hundredths of cismontane Virginia. We think the best mutton breed of sheep in the world is the South Down, or a large infusion of that blood, and we deem that sheep also particularly suited to the same region. It is, in fact, the Devon among sheep. It is true, we think the Merino (or Saxon, which is only a variety of Merino,) a better sheep for the average Virginia farmers, for several reasons—but they are small, and sell cheap, and we do not propose a ram of that blood, though we are willing to put a ram and ewe of that flock in place of the South Down, and will select them from a flock of our own of pure blood. The hogs will do for any country.

Now it will strike every one that these animals will be cheap enough to any one, who will take the trouble to get subscribers and make collections for the Planter, at twice the value of such. And we propose to rate them in that way. We, therefore, now give notice—

1st. That to any individual who shall send us the largest number of subscribers—not less than 100—the cash paid at the time the subscription list is sent—each collection of one dollar to count as a subscription, pro tanto—the fine Devon bull calf, Farmington, mentioned above.

2d. To any individual who shall send us the next largest number—not less than 50—with like condition as above, the South Down ram, or a ram and ewe of the Saxon and Merino breed, as may be preferred.

3d. To the one who shall send us the next largest number—not less than 25—with like condition as above, the pair of pigs.

The premiums to be awarded in the April issue of the Planter, and the animals to be delivered at the drawer's risk and charges at the Shadwell Depot, in Albemarle, as to all stock but the boar pig, which will be sent on the same terms from Richmond.

This is an experiment which costs us $87 50. If it succeeds we shall hope to be able to offer still more numerous and equally appropriate inducements every year hereafter.

Persons meaning to compete for these premiums can get a list of the indebted subscribers for any county or section they may wish, on application, by letter, to P. D. Bernard, Richmond.

SECRETARY TO THE STATE AGRCULTURAL SOCIETY.

It is a little singular that when this Society wanted friends among the newspapers of the city of Richmond, it was very difficult to get them, and that now, when it is not in such straits, some of them volunteer their good offices, their advice and their censure, and have come to take a very lively interest in matters which but a short time since attracted none of their regard. For instance, certain papers—some of whom have since made the amende honorable—assailed the appointment of Secretary by the Executive Committee as a slight upon one gentleman and an act of favoritism to another. It is not necessary to say that these gentlemen did not know what they were talking about. But it is due to both sides to say that the office was altogether unsolicited, and was accepted with much hesitation by the appointee with the distinct mutual

understanding that either party might instantly dissolve the connection.

The Richmond Whig made two mistakes in asserting that the present holder could not keep an office in Richmond, and that it was a sinecure in his hands. As to the last, though perhaps there is no better judge of a sinecure than the friend who made the charge, yet we must demur to his decision. Taking *his* pay for *his* services as the standard, we should be very happy for that gentleman himself to assess our rate of compensation; and taking into account his bill, already presented, we will wager that he himself has up to this time made more clear money out of the Society than we have. As to the first, it is proper to say that there will be an office, so soon as the Society obtains rooms for the purpose, always open to the public, either by the Secretary or his clerk. Whether the services to be rendered shall be worth $1500 is for others to say, but it is not very kind, though doubtless well meant, either to the Secretary or the Society, for a gentleman, who cannot know their nature or their value, to depreciate them in advance. When they are not performed satisfactorily to either, the incumbent will resign the trust. Meanwhile let us say to the subscribers to the Southern Planter that he conceives the office, if it suits him to retain it, will strengthen his editorial hand. When it ceases to do that we shall prefer the Planter. So much in justice to all parties.

THE MAINE LIQUOR LAW.

One of our subscribers sends an answer to the late communication of Mr. Hargave, in which he introduced the Maine Liquor Law. We inserted that part of Mr. Hargrave's article with great reluctance, because we apprehended a reply which would open the whole subject, and make the Planter the medium of argument, and, possibly, of vituperation, upon a matter with which, as an agricultural paper, it can have nothing to do. We hope, therefore, that the friend who sends us the reply in question, if we state the fact, that he and many others are at all times ready to meet any opponent upon any theatre, will excuse us from opening our columns to the crowds that would fill them so long as the subject is agitated. We can assure both sides that whilst the views of the Editor of this paper are unalterably fixed upon the temperance question, he would be the very last man, he hopes, to permit the paper itself to do injustice to the views, motives, or policy of either party.

PENNY POST.

We have received a brief Prospectus of the Penny Post, a new daily and weekly paper, neutral in politics, to be published in Richmond by Hugh R. Pleasants, V. E. Shepherd and James Pleasants. Of course it will be a good paper—and we wish it all possible success.

We are very happy to learn that at Amelia Court House, on Thursday, the 24th day of November, "between the hours of 11, A. M. and 4, P. M." sixty-five men came forward and subscribed thirteen hundred dollars in life memberships. We thought Albemarle had done well to raise her thousand dollars in one day; but when we consider that Amelia has only half a delegate to our two, which makes her only one-fourth our representative size, why, "the Court give up"—Albemarle must hide her diminished head.

VIRGINIA STATE AGRICULTURAL SOCIETY.

Proceedings of the Executive Committee.

At a meeting of the Executive Committee of the Virginia State Agricultural Society, at the Exchange Hotel, on Saturday evening the 29th October, 1853: Present, Philip St. Geo. Cocke, President, Harvie, Booth, Irby, Overton and Williams:

The Recording Secretary presented a letter from Thomas T. Giles, Esq., Secretary, communicating the following resolutions of the Committee on City Grounds:

Richmond, Oct. 29, 1853.

Whereas, in compliance with the instructions of the Council of the City of Richmond, the Committee on City Grounds have caused the square near the western limits of the city to be enclosed and fitted up according to the plan approved by the said Council, for the accommodation of the

State Agricultural Society at its ensuing Fair: therefore,

Resolved, That the said grounds be now surrendered to the Executive Committee of the State Agricultural Society, to be held and used by them for the purposes of the said Fair, and as long as the said Society may desire to retain them for that purpose; and that the Superintendent of City Grounds deliver the keys of the said square to the Chief Marshal or other proper officer of the Agricultural Society.

Resolved, That the Superintendent of City Grounds report himself with ten of the hands in his employment to the Chief Marshal of the State Agricultural Society, and that under the direction of the said Marshal he cause such repairs and other work to be done on the grounds as may be necessary during the continuance of the Fair.

[Copy: Teste] THO. T. GILES,
Sec'y Com. City Grounds.

Resolved, That the Executive Committee now proceed to supply vacancies in the committees appointed to award premiums at the Exhibition to commence on the first proximo, and that in case of the absence of any member on the day of their meeting, each of the committees of award is authorized to fill vacancies in its own body. If there be a full committee of those originally appointed present, then the new appointments to be null and void.

The Committee then examined the lists of judges with the view to supply vacancies known to exist, and added the following new appointments on the several following committees, viz:

ON EXPERIMENTS.

B. Johnson Barbour of Orange.

Branch 2d—*On Essays or Written Communications*—David Chalmers of Halifax.

CATTLE.

Short Horns, &c.—Gen. R. T. Preston.

Devons and Alderneys—Ro. J. Dunn of Chesterfield.

Natives and Grades—E. J. Amiss of Montgomery.

Working Oxen—Jas. R. Kent of Montgomery.

Fat Cattle—J. T. Sawyer of Wythe.

SHEEP.

Fine and Middle Wools—C. L. Crockett of Wythe, William Old of Powhatan, R. E. Scott of Fauquier, Mr. Patterson of Bedford.

Long Wools—Wm. Old of Powhatan, Rev. J. S. Armistead of Cumberland.

Natives, &c.—Nathaniel Alexander of Mecklenburg, Wm. Meredith of Brunswick.

Imported—A. B. Nichols of Bedford, J. S. Hardaway of Amelia.

PREMIUM ANIMALS.

Travis H. Eppes of Nottoway, John F. Wiley of Amelia.

POULTRY.

J. Maury Garland of Richmond, W. M. Bagley of Lunenburg.

AGRICULTURAL IMPLEMENTS.

1st Class—Dr. Thomas R. Blandy of Nottoway, William Gilmer of Albemarle.

4th Class—Thos. L. Preston of Washington, Jas. Harding of Richmond, Wm. D. Simms of Henrico, Wm. E. Meade of Amelia.

5th Class—A. Stevenson of Albemarle.

AGRICULTURAL STEAM ENGINE.

John A. Jeter of Richmond, Uriah Wells of Petersburg, Wm. J. Watkins of Charlotte.

MOST EXTENSIVE COLLECTION, &c.

Corbin Warwick of Richmond.

PLOUGHING AND PLOUGHING MATCH.

R. W. N. Noland.

FRUIT AND FRUIT TREES.

Nathan Ward of Nottoway, Dr. Henderson of Cumberland, Jesse L. Maury of Albemarle, William Sayre of Norfolk.

VEGETABLES.

Th. W. Sydnor of Nottoway, Thomas S. Pleasants of Petersburg, William H. Betts of Henrico, Algernon S. Storrs of Henrico, Nathaniel Matthews of Henrico.

HOUSEHOLD MANUFACTURES.

Sam'l C. Anderson of Prince Edward.

FAMILY FLOUR.

B. W. Finney of Powhatan, Hugh Nelson of Petersburg, B. F. Hannan of Petersburg.

MANUFACTURED TOBACCO.

Thomas F. Eppes of Nottoway.

DISCRETIONARY PREMIUMS.

W. C. Rives of Albemarle, E. G. Leigh of Amelia, Dr. A. A. Campbell of Nottoway, John A. Scott of Prince Edward, James Bosher of Richmond, Richard E. G. Adams of Lunenburg.

The President presented and read the annual report of the proceedings of the Executive Committee, which was approved, adopted and ordered to be presented to the Society.

Resolved, That the badges designed to designate the members of the Society be distributed gratuitously.

MONDAY, October 31, 1853.

The Executive Committee met, pursuant to adjournment. Present, P. St. Geo. Cocke, President; E. Ruffin, Sr., Harvie, Booth, Irby, Overton, Boulware, Newton, Peyton and Williams.

The President reported to this meeting the following minute of the proceedings of a portion of the Executive Committee, held this morning:

Resolved, That Madam Sontag having in very handsome terms, and in the most liberal spirit, presented to the Virginia State Agricultural Society the sum of one hundred dollars, to be awarded as a premium to the successful competitor at the Ploughing Match—the Committee accept the offer; and invite Madam Sontag to attend the Ploughing Match on Thursday next, on the Society's grounds.

Resolved, That the order of proceedings heretofore published be amended in the following particulars, viz:

1. That Dr. Maupin be requested to address the Society to-morrow night, (Tuesday,) on the relations of Physical Science to Agriculture.

2. That B. Johnson Barbour, Esq. be requested to address the Society on the show grounds on Wednesday at 11 o'clock, and that the ploughing match and trial of ploughs be postponed until half past 12 o'clock on that day.

3. That Gen. Wm. H. Richardson be a committee to arrange with Mr. Brown the time and place for the delivery of a lecture on the subject of Wool-growing, and provide suitable accommodations for the exhibition of his specimens and illustrations.

4. That John Tyler, Esq., Ex-President of the United States, be requested to deliver a valedictory address on Friday, near the close of the Society's proceedings, on the show grounds.

5. That the Society will transact necessary business every night before entering upon the conversational discussions provided for in the order of proceedings heretofore published.

Resolved, That the Committee on the Ploughing Match be instructed to distribute in premiums for the best ploughing, the generous donation of one hundred dollars, made for that purpose by Madam Sontag.

WEDNESDAY, Nov. 3d, 1853.

At a meeting of the Executive Committee, held this morning, the following communication from the Common Council of the city of Petersburg was read:

Common Council of the City of Petersburg, Nov. 1, 1853.

Mr. Geo. W. Bolling offered the following resolutions, which were unanimously adopted:

1. *Resolved*, That this Council hereby tender to the Virginia State Agricultural Society the use of the Poplar Lawn in this City for their next annual meeting.

2. *Resolved*, That the Council will make a suitable appropriation for the accommodation of the Fair at Poplar Lawn—a place well adapted for such an exhibition as to space, location, and an ample supply of the best water.

3. *Resolved*, That the Mayor communicate the foregoing resolutions to the Executive Committee of the Agricultural Society.

Whereupon the Committee adopted the following resolution:

Resolved, That the President inform the Common Council of the City of Petersburg, that the period has not yet arrived for determining the time or place of the next annual meeting of the Society; and that they are duly sensible of their obligations to the Common Council, for their polite offer of suitable ground for the next exhibition, and at the proper time will give it due consideration.

And then the Committee adjourned.

CHAS. B. WILLIAMS, *Rec. Sec'y.*

ANNUAL MEETING OF THE VIRGINIA STATE AGRICULTURAL SOCIETY.

The Virginia State Agricultural Society held its second annual meeting in Metropolitan Hall in the city of Richmond on Monday evening, the 31st of October, 1853.

The President, Philip St. Geo. Cocke, Esq., after a few prefatory remarks, read the annual report of the labors of the Executive Committee since the last meeting of the Society, which is as follows:

The Executive Committee of the Virginia State Agricultural Society submit the following report:

At the last annual meeting of the Society it was officially reported that the whole number of members then constituting the Society was 339, and that the funds in the hands of the Treasurer amounted to $268.

In this feeble condition of the Society your Committee entered upon their duties.

Without numbers and without means

the Society could scarcely be said to have more than a nominal existence. It, therefore, became the obvious and imperative duty of your Committee in the first place, to exert their best efforts to augment those main elements of the Society's existence and future usefulness.

As a first step, your Committee resolved at their first monthly meeting, to call a meeting of the Society to be held in the city of Richmond on the 10th of March, and in order to secure the attendance of as large a number of persons as possible, a circular letter was prepared and widely distributed through the State, earnestly appealing to the farmers and planters to unite with the Society, to attend the proposed meeting, and to exert themselves in interesting others in the cause of agricultural association and improvement.

The meeting took place according to appointment, and, although not very numerously attended, was animated by a zeal and enthusiasm that had never before been equalled on similar occasions. The utmost harmony prevailed, and the most effective measures were unanimously adopted, to advance the great objects of the Society.

The proceedings of that meeting being a matter of record, we shall not here recite them, but only state, what no where else appears in your published proceedings, viz. that about $1800 was subscribed, paid or pledged, to the Society at that meeting, and, what was far better than all else, a spirit evinced that strongly indicated the most favorable state of the public mind, and which encouraged your Committee to believe that could they bring their efforts to bear steadily upon the public mind, the cause of the Society would thenceforth steadily and rapidly gain on the puhlic favor and support.

But the meeting being over, it was quite manifest, notwithstanding the enthusiasm of the moment, that all would again relapse into apathy and inaction, and another year revolve and still leave the Society without numbers and without means, unless measures could be promptly adopted to keep the public mind directed to the subject, and which, at the same time, would be effective in enlisting members, and adding to the pecuniary resources of the Society; in other words, to follow up the present success.

Time and again had experiments been made in Virginia to establish associated effort in behalf of agricultural improvement, and the uniform course had been to hold meetings or conventions—to adopt resolutions—make and publish speeches—circulate addresses—adjourn, and leave the cause to go on of itself, as if its ultimate progress were inevitable, and in proportion to the impetus imparted by a single effort. But as there is no such thing as perpetual motion in physics, so there is an analogous friction in all matters of association—affairs will *not proceed of themselves*, however well devised and successfully initiated, any more than a ball will continue its motion from a single impact. To carry on the analogy it may be said that the Society had set its ball in motion, and the question for your Committee to solve was, how to keep up, and even to increase that motion?

Effort! effort! perpetually made and judiciously applied, was obviously the only moving principle or cause.

But there was no organization by means of which your Committee could exert such further effort to reach, and to move the public mind. It was, therefore, necessary to supply this defect in the Society's organization of its executive department—as far as it was within the power of your Committee to do so; and, accordingly, they determined to appoint one or more agents, whose duty it should be to visit the cities, towns and counties—to enlist members and life members—collect subscriptions—to awaken an interest in the Society where none existed—or to keep alive and to increase such interest, wherever it was manifested.

At first it appeared difficult to find an agent, possessing the requisite intelligence, tact and zeal, to perform in the best manner the laborious and important (vitally important) duties of that office.

Fortunately, however, for the Society, Gen. William H. Richardson, Ex-Secretary of the Commonwealth, animated by a rare and patriotic zeal in the cause of agricultural improvement in his native State, in whose service, in other capacities, he had already worn away, unrequited, the best years of his life, was yet willing to sacrifice still more in her service, and to undertake the difficult and disagreeable labors of an agency for the Society.—Deeming it highly important to secure the services of so zealous and able an agent, the President did not hesitate to employ him as soon as he ascertained it was practicable to do so, and to authorize him to enter upon his labors, not doubting that this act would be fully ratified by the Com-

mittee, which, in fact, was promptly done at their next succeeding meeting.

Gen. Richardson was further authorized by the Committee, to appoint one or more assistant agents, and instructed to canvass the cities, towns and country, and over as large a portion of the State as possible. This labor he has performed, aided by his son, William H. Richardson, Jr., in a manner most advantageous to the Society, as well as satisfactory to your Committee. This officer will make report of his own labors in detail, which renders it unnecessary to say more here in this connection.

As another means of advancing the interest of the Society, your Committee endeavored to enlist the potent agency of the newspaper press, and have the pleasure of stating that they have received the most important aid from that quarter.

As the result of these various instrumentalities your Committee have now the satisfaction to report that since the last annual meeting, in December, the number of members has been increased from 339 to at least 4000, and the funds in the hands of the Treasurer from $268 to about $8000.

Having devised and put in motion, as above indicated, the machinery necessary to secure the "material means," your Committee next turned their attention to carrying out the resolution adopted at the meeting in March last, to the effect that the Society would hold its first exhibition and fair during the ensuing fall. It will be perceived by reference to the proceedings of the meeting just referred to, that the resolution for holding an exhibition was adopted, in connection with another resolution, instructing the Committee "to treat with the Council of the City of Richmond for the procurement of suitable grounds for the exhibition, and for such other aid as the city would furnish."

At as early a period, therefore, as practicable, your Committee sought, and readily obtained, a conference with some of the members of the City Council, and in accordance with the instructions of the Society, invited the Council to give their aid by providing the necessary grounds and fixtures for the exhibition. This proposition was promptly met and liberally responded to by a vote of the City Council, ordering the handsome lot, now in charge of your Committee, to be set aside for their use, and appropriating $6000, to be expended in erecting the necessary structures, in conformity to a well digested plan, design and estimate furnished by the Committee.

Subsequently, upon the suggestion of your Chief Marshal, Col. Tompkins, that much expense would be unavoidably incurred in the administration of the important departments of police, order and arrangements during the exhibition and fair, the Council promptly put at his disposal $1000. And it is further due to the liberality of the Council, to state that their first appropriation of $6000, falling considerably short of accomplishing the requisite fixtures on the grounds, they did not falter in the work, but went on to execute the designs of your Committee until the aggregate of their expenditures cannot have fallen far short, if any, of the sum of $10,000.

It is deemed unnecessary to trouble the Society with a detailed account of the labors involved in preparing for this first exhibition, in designing and executing the improvements on the ground, in prescribing rules and regulations, in preparing a premium list and selecting and appointing judges of award, in appointing a corps of marshals and organizing a system of police, so as to secure the best possible arrangements and order on the grounds. The results of these labors are now before the Society, and whatever of defect may appear in them, it is hoped will be viewed with indulgence and attributed to the novelty and real difficulties of the task, rather than to any delinquencies on the part of your Committee.

We cannot, however, dismiss this subject without directing your particular attention to the very liberal public spirit and the enlightened policy evinced by the City Council, in the very handsome provision made for the Society's exhibition.

And further, without acknowledging our obligations to Thos. T. Giles, Esq., whose zeal and cultivated taste were most usefully exercised in directing the execution of the improvements on the grounds; and also to Mr. Gill, the skilful and obliging City Engineer, who furnished, under the direction of the Committee, the plans and specifications, and superintended the work during its progress to completion.

From the first it was clearly perceived that the costly and laborious preparations for the Society's exhibition would be made to little purpose, should not the rail road and other transportation companies leading into Richmond, offer all requisite facilities in the way of transporting persons,

stock and articles to and from the city. Application was, therefore, made to each of those companies, and reasons urged upon them for the adoption and exercise of a liberal policy in their charges for transportation to and from the exhibition. We have the satisfaction of reporting, that these applications were met in the most liberal spirit, and that all of the companies without an exception, promptly announced by public notice, the remission of all charges on animals and articles, going to and returning from the exhibition; and most of them even remitted all charge on the members themselves.

As all previous applications to the Legislature for pecuniary aid to the Society, had uniformly failed to elicit from that honorable body, the slightest favorable consideration, your Committee did not deem it expedient to make any further formal application. Nevertheless, at the instance of a few zealous friends of the Society, a bill was originated in the House of Delegates, the object of which was to appropriate a small amount for the use of the Society. But, as usual, this movement proved abortive. In this connection, it has been thought to be the wiser course to urge on the work of augmenting the numbers and influence of the Society, and thus to gather strength for an appeal hereafter to be made to the Legislature, not by a few, but by the people of the State themselves, speaking through a Society strong in numbers and influence.

It will be for the Society to decide, whether, after the present annual meeting, it may not be in circumstances to make another appeal to the Legislature with more hope of success.

The Constitution of the Society, requires the Executive Committee to invite gentlemen to furnish communications on such subjects of practical and scientific agriculture, as they may deem important; to take charge of and distribute or preserve all seeds, plants, books, models, &c. which may be transmitted to the Society; and to take charge of all communications designed or calculated for publication, and as far as they may deem expedient, collect, arrange, and publish such matter as they shall deem best calculated to promote the objects of the Society.

Your Committee are profoundly sensible of the vast importance of the subjects embraced in this clause of the Constitution. In fact, the whole machinery of the Society, is but a means of effecting the objects defined in that clause of the Constitution.

And an agricultural society that did not contemplate as its highest object, the *collection and diffusion of useful knowledge*, although it might hold the most splendid exhibitions, and overflow with numbers and with means, would, nevertheless, be nothing more than an expensive, vain and empty parade, useless, in fact, in effecting any improvement in the theory and practice of agriculture.

To collect and diffuse useful knowledge, then, is the great object of the Society.

And if but little has been effected during the last year in this department of the Society's operations, it can be readily shown to have resulted from a defect in the organization of the Executive Department of the Society, which hitherto it was not in the power of the Committee to correct, and not from any delinquency on the part of the Committee itself.

It affords us great satisfaction, however, in this connection, to be able to announce to the Society, that many and valuable contributions have been made to the printed volume of your Transactions during the year 1852, by Edmund Ruffin, Esq. In fact, it is not too much to say, that all the communications for 1852, received and published by the Committee of that year, were from Mr. Ruffin, with the exception of a most valuable article by Samuel Mordecai, Esq., on the history of the growth of the tobacco trade in the United States, and a paper on agricultural machinery by Edwin G. Booth, Esq., of Nottoway. For the year 1853, Mr. Ruffin has further contributed some valuable papers. There is also an article by Professor Gilham of the Virginia Military Institute, upon the analyses of marls and green sands, of a very interesting character. Besides these, there will be presented to this meeting many valuable papers and reports. The defect of organization referred to, is the want of a Secretary of the Society—a salaried officer, required to give his whole time and mind to the duties of his office. The thanks of the Society and of the Committee are due to Mr. Frank: G. Ruffin, the Corresponding Secretary, for important aid rendered by him in the discharge of the duties of that office—but it was obviously quite impossible for him to have superadded to the labors of editing the Southern Planter, and the call of private business, the arduous duties of a regular Secretary of your Society, and that, too, without compensation.

And, without the aid of a regular Secretary, there was no means of establishing such a communication and correspondence with the agricultural community, as could effectually carry into operation the provisions of the Constitution above referred to. It may be said, without fear of contradiction, that no agricultural society, either in this country or in Europe, ever survived the first chrysalis years of a few cattle shows, and entered upon the higher and broader career of collecting and diffusing useful knowledge, without the aid of a Secretary's office, zealously and ably administered. A Secretary, to a great State Agricultural Society, is as indispensable a functionary as is an Adjutant General to an army, who is the centre and medium of intelligence, correspondence, and communication for the whole.

Soon, your Society will number its thousands and tens of thousands of members, scattered over the wide expanse of our great State, and will be far more unwieldy than an army of soldiers of equal number, marshaled into close and orderly array.

A Secretary's office, established at Richmond as the head quarters of the Society, would, of itself, constitute a material bond of union between the widely scattered members of the Society—it would become, also, a medium of communication between the various individual or associated members of the great agricultural community. It would be the farmer's intelligence office—the depository, too, of seeds, plants, shrubs, trees, &c.—of new and valuable varieties, for distribution—of models of useful machines—of specimens of soils, marls, manures, minerals—the place for collecting contributions to useful knowledge in agriculture; and from which to diffuse the same, through printed publications or otherwise, under the supervision and control of the Executive Committee. In view, then, of the indispensable importance of a Secretary to the Executive Department of the Society, your Committee respectfully recommend, that provision be made for the selection, appointment and salary of such an officer, in such manner, as in the wisdom of the Society, may appear best calculated to advance its great objects in collecting and diffusing useful knowledge appertaining to agriculture. Your Committee would further call attention to a consideration of the expediency of establishing at Richmond, a suite of *Agricultural Rooms*, and as soon as either the unaided funds of the Society, any appropriation by the Legislature, or the enlightened policy of the Council of the City of Richmond, may render it practicable.

One of these rooms might be occupied by the Secretary as an office and a depository for the archives of the Society; and another should be a large hall for meetings of the Society, for lectures upon subjects connected with agriculture—a depository for seeds, models, &c.—and a third might be a library and reading-room.

The Constitution authorizes the appointment by the Society, itself, of an "Agricultural Commissioner and Chemist."—Your Committee deem it highly important, that there should be appointed a Chemist to the Society, and they would respectfully urge action upon this subject at its present meeting.

We cannot close this report without returning our thanks to Chas. B. Williams, Esq., the Recording Secretary of the Society, not only for the prompt discharge of the special duties of that office, but for the important aid at all times rendered to the Committee in the discharge of their labors, and for many other useful services, all gratuitously rendered to the Society, from its organization to the present time—services, which we know have been rendered at great personal sacrifice, and in addition to the duties of a laborious bank office.

Mr. Edmunds of Halifax, after complimenting the Executive Committee upon the manner in which they had discharged the arduous and responsible duties devolved upon them, moved the following resolutions, which were adopted, viz:

1. *Resolved*, That Messrs. William Old of Powhatan, B. Johnson Barbour of Orange, Richard A. Cunningham of Culpeper, Edmund Ruffin, Jr. of Prince George, and J. Ravenscroft Jones of Brunswick, be, and they are hereby appointed a committee to consider and report upon so much of the Report of the Executive Committee as relates to the appointment and compensation of a Secretary who shall be charged with conducting the correspondence and general business of the Society.

On motion, P. St. George Cocke, Esq. the President, was added to the committee.

2. *Resolved*, That so much of said report as relates to the appointment of an Agricultural Chemist be referred to a committee to consist of Edmund Ruffin, Sr., Esq. of Hanover, J. R. Edmunds, Esq. of Halifax, Dr. John B. Harvie of Powhatan, Col. F. H. Smith of the Virginia Military Institute, and Dr. William Welford of Culpeper.

On motion of Mr. John Marshall of Orange, the following resolution was unanimously adopted:

Resolved, That four thousand copies of the

Report of the Executive Committee be published for the use of the members of the Society.

There being no other business before the Society, Col. T. M. Bondurant of Buckingham, requested information from such persons present as might be able to speak from experience of the effects of guano applied as a top dressing for wheat. This led to an interesting discussion, in which Willoughby Newton, Esq. of Westmoreland, Francis Nelson, Esq. of New Kent, Col. Boudurant of Buckingham, Commodore T. Ap C. Jones of Fairfax, Dr. A. Crump of Powhatan, Mr. Harris of Powhatan, Dr. P. C. Venable of Mecklenburg, Dr. E. P. White of Caroline, B. H. Magruder, Esq. of Albemarle, Col. Patteson of Fauquier, and others took part.

On motion of Mr. Newton, seconded by Mr. Harvie, the further discussion of the subject was postponed until to-morrow night.

Adjourned to meet in this Hall to-morrow evening at half past 7 o'clock.

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TUESDAY EVENING, Nov. 1, 1853.

The Society met agreeably to adjournment.

The President announced that Dr. James S. Whitten of Hancock county, Georgia, was in attendance upon this meeting as a Delegate from the Southern Central Agricultural Society, whose letter accrediting him as such, expresses the "hope that this manifestation on (their) part of a wish to coöperate in effecting the common objects of our Societies will be cordially reciprocated."

Mr. Ruffin, from the Committee on the appointment of a State Agricultural Chemist, reported that the committee were unanimously of the opinion that such an officer ought to be appointed, but that owing to the absence of some important documents, they could not at present make a more full report upon the subject.

On motion of L. E. Harvie, Esq. of Amelia, the above report was laid upon the table, who, after an eloquent and earnest appeal to the Society, submitted the following resolutions:

1. *Resolved*, That in view of the indispensable necessity for raising a permanent fund for the uses of this Society, a voluntary subscription be made by the individual members of the Society, and those interested in the subject of agriculture, payable in not less than six months, and that such subscription be binding when it amounts in the aggregate to twenty thousand dollars.

2. *Resolved*, That the individual members here present be urged to become life members.

3. *Resolved*, That committees be appointed for the several counties to raise subscriptions for the use of the Society.

These resolutions were ably supported by Mr. Newton of Westmoreland, and carried by an overwhelming majority.

Mr. Ruffin of Hanover, rose to suggest three modes of effecting the object of the resolutions: 1st. The distribution of cards for subscription among the members present; 2d. That persons desirous of becoming life members should report their names to the Secretary; and 3d. That public spirited gentlemen should pledge their counties for such sums as they might think proper to become responsible for to the Society.

Cards were then distributed, and many gentlemen rose and gave in their names and some of them those of their wives, sons and daughters, as life members, and others guaranteed their counties for specific amounts. This occupied the remainder of the evening's session, and the subscriptions thus made amounted in the aggregate to about forty thousand dollars.

Adjourned to meet in this Hall to-morrow evening, at half past 7 o'clock.

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WEDNESDAY EVENING, Nov. 2, 1853.

The Society met pursuant to adjournment.

Mr. Boulware of King & Queen, from the Committee appointed to confer with the President in regard to the monopoly in the trade in Guano, submitted the following report:

The undersigned committee appointed to visit the President of the United States, and solicit his aid in relieving the country of the present monopoly in guano, beg leave to make the following report:

It was first deemed important by the committee to examine the records of the State Department at Washington, and ascertain what had been the action of our government on the subject; and also collect all the information which might be obtained there, as to the manner in which this trade is carried on. The Secretary of State courteously permitted the investigations to be made, which were desired. The committee then proceeded to Baltimore, where the agency for the sale of guano in this country is established, and sought from merchants and other sources within their reach, whatever other facts might serve to throw light on the course and character of this trade.

The sale of guano is in the hands of a Peruvian company, or, more properly, mercantile house, which is established in England, and has an agent who conducts the business in the U. States. This company has the exclusive privilege of trading in guano in this country. They enjoy a monopoly entirely inconsistent with all our usages, opposed to our interests, and justly subject to all the prejudice entertained by our people on the subject of monopolies. The singular and anomalous spectacle is presented, of a foreign government establishing on our territory a monopoly, which embraces an amount of trade equal, probably, to eight or ten millions of dollars per annum; and which must increase with

great rapidity from year to year, if the demand for the article should be supplied. These eight or ten millions of dollars of value in guano, do not represent less than from twenty to twenty-five millions of dollars in grain, cotton and tobacco. For it is believed to be a fair estimate, that on an average, one dollar expended in guano, gives in the three great staple crops above referred to, from two dollars and a half to three dollars in the succeeding crop. That is from 150 to 200 per cent. upon the amount invested. We have, then, this extraordinary result. The Peruvian government through an exclusive agency, established among us, is controlling the productiveness of our country to the amount of twenty or twenty-five millions of dollars per annum. And it is not only probable, but nearly certain, if some substitute should not be found for guano, that this sum will very soon be enlarged to fifty millions. It must also be recollected, that this production is for the most part in bread stuffs, which, of all products, are the most important to every people.

The commercial marine also feels the influence of the monopoly in the transportation of this article. It is stated on good authority, that $4,000,000 will be paid out in freights during the present year. It is probable, that this amount is to some extent exaggerated; but it is certainly very large. The vast amount of tonnage engaged in this trade, is employed directly by the Peruvian government, or by this company, or by another of a similar kind—it is immaterial, so far as our interests are concerned, in which of these modes; as in either, a powerful and concentrated influence of a foreign government is brought to bear on this department of our industry. Whether it has been exerted thus far capriciously or unjustly, this committee cannot say.

Other governments establish monopolies within their own territories; but this is the first example so far as it is known to this committee, of a monopoly chartered and located within the boundaries of another power. Is it not in violation of those courtesies, and those friendly relations which usually control the conduct of one nation towards another? Is it not inconsistent with the sovereignty of our government? Can it be proper thus to permit an imperium in imperio to be placed among us, wielding so vast an influence over the resource, the industry and the productiveness of our country? The hostility, the caprice, or the indifference of a mere trading company, may affect the interests of our citizens to the amount of many millions of dollars, and may bring embarrassment and distress on thousands, and even millions of our population. At this very time, a large portion of the agricultural interest of the Middle States, to say nothing of other sections, is suffering from the neglect of this company to have a supply of guano in the country in time for the wheat crop.

This is a Peruvian company, irresponsible to us, regardless of our interests, listless and almost indifferent, it would seem to their own. They belong to a race destitute of the industry and enterprise that are common among the people of this country. The mode in which this trade is carried on, is a fit example of their energy and their capacity to conduct large industrial operations.

With guano sufficient for the world, with a supply already formed of one hundred and fifteen millions of tons, according to their estimates, they, last year, excavated and furnished to the markets of the wide earth, 200,000 tons. If 500,000 tons were removed every year, it would require upwards of two centnries and a third to extract the supply. The bounties of Heaven bestowed on these people, through the birds of the air, in the little isles of the sea, bordering their coast, are more valuable than the gold mines of California, if they would use them. Yet, with an obstinacy like that of the dog in the manger, they will not use them themselves, nor will they permit others to use them. Yet they have nothing to do to avail themselves of these treasures, but to shovel the guano from their islands elevated above the level of the sea into the vessels which come along side to receive it. They employ ships and permit them to lie idle for weeks without commencing to load them. The same ships arrive at Baltimore, and with thousands of farmers and their commission merchants crowding the office of the Peruvian agent and eagerly demanding guano, these ships lie at the wharves for weeks unloaded. With the demand not half supplied, they refuse to permit the captains of our vessels to load themselves, but force them to wait their turn. Thus is this trade embarrassed and obstructed at the beginning and the end, by the incompetent and indolent managers who control it.

The Peruvian government itself is not benefited by this monopoly, which is esta-

blished among us, so much to our inconvenience, annoyance and injury. This useless, not to say mischievous machinery, of an exclusive company here, might be dispensed with, with as much profit to that government as to ourselves. They might well spare themselves the trouble of employing ships to send us guano, and having an agency here to dispose of it for them. The simplest, the easiest, and the most profitable mode of conducting the trade, would obviously be to throw it open to the world. Let those who wish it go to the Chincha Islands and buy the guano. Let merchants and farmers send their own ships, and bring it here, and let free competition bring down the price to a proper standard. Why should the sale of this commodity be placed on a different basis from that of every other? What would be the feelings of the people of the United States, if the Chinese should establish here a monopoly for the sale of tea, and should refuse to permit it to be brought or sold here in any other way than through the exclusive agency of their own company?

From all the information which this committee has been able to obtain, it is believed the Peruvian government receives about $12 per ton for their guano; and that at present an average of $18 per ton is paid for freight, making an aggregate of $30 per ton for this article, delivered in our ports. Allowing $5 for commissions and profits and other small expenses, it would cost here $35. Yet we pay $46, and all of this sum, except the $35, is lost by the cumbrous and pernicious machinery of monopolies. It cannot be doubted that the Peruvian government would gain more and our farmers pay less by a change of system.

When Mr. Clayton was at the head of the State Department, he addressed a communication to the Peruvian Minister at Washington, urging the adoption of free trade in guano. He received an answer from the Minister, that the contracts made by his government with commercial companies, giving them exclusive privileges, were then in force, and that it would be impossible to make any change of system, until those contracts had expired; but he expressed a hope that, then, a more favorable system might be introduced. Those contracts did expire, and new engagements of a similar kind, it is believed. were entered into, with one or more companies, without further effort on the part of this government. But since the present Administration was inaugurated, the Secretary of State addressed a despatch to our Minister in Peru, directing him to bring this subject before the Peruvian government, and to insist on the adoption of free trade.

The committee is happy to say that the President expressed the most favorable disposition in the interview, which he was pleased to give them; and declared he would use all the means within the sphere of his power to rid us of the present odious system. He seemed fully impressed with the magnitude of the interests involved, and the great importance of the subject. But he expressed a fear that the same obstacle would present itself now, that was urged when his predecessor attempted a negotiation. It is not believed by this committee that this obstacle is insuperable.

All of which is respectfully submitted,

William Boulware,
Philip St. Geo. Cocke,
Lewis E. Harvie,
B. J. Barbour,
Frank: G. Ruffin.

The above report was received and laid on the table; and then, on motion, was referred back to the same committee, with instructions to report resolutions in accordance with the report.

At the same sitting, the committee reported the following resolutions, which were unanimously adopted:

Resolved, That the present mode of conducting the guano trade in this country by the government of Peru, is subject to such objections as to constitute a grievance to which the people of the United States ought not to submit.

Resolved, That the President of the U. States be requested to have the negotiation with Peru conducted with *energy* and *urgency*, and that he be earnestly solicited to adopt all the means which are in the range of his powers to rid this country of this odious monopoly.

Resolved, That the above resolutions, together with the report, be communicated to the President of the United States.

The Society then resumed the conversational discussion on the subject of guano as a top dressing for wheat, &c.

Mr. T. Jones of Richmond county, who was then called for, made some very interesting statements of his experiments with this agent.

To the inquiry whether guano could be successfully used as a top dressing after the wheat is seeded, Mr. Fleming of Goochland, replied that he did not think it could be advantageously

used in that way, except upon a snow. Mr. Sutton related two experiments of friends in Hanover and Chesterfield, from which it appeared that guano had been applied by them respectively as a top dressing, with very satisfactory results, without snow.

Mr. Bassett of Hanover, stated that he had used guano as late as April as a top dressing for wheat, with favorable results. He also related numerous experiments with guano under varied circumstances, all of which resulted in a great increase in crops.

Adjourned to meet in this Hall to-morrow evening at half past 7 o'clock.

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THURSDAY EVENING, Nov. 3, 1853.

The Society met pursuant to adjournment.

The President introduced Dr. S. Maupin, Professor of Chemistry in the University of Virginia, who had been invited by the Executive Committee to deliver an address on the Relations of Chemistry to Agriculture. He proceeded to deliver a very able address, which was received with great applause.

Mr. Edmund Ruffin, Sr. introduced to the Society Dr. Wm. C. Daniel, another Delegate from the Southern Central Agricultural Society of Georgia.

On motion of Thos. L. Preston, Esq. it was *Resolved*, That the Constitution be so amended in section 3d as to admit of the addition of five members to the Executive Committee.

The Society then proceeded to the election of officers for the ensuing year, when the following gentlemen were nominated and unanimously elected:

Philip St. George Cocke, Esq., President.

VICE PRESIDENTS.

1. Edmund Ruffin, Sr. of Hanover.
2. Lewis E. Harvie of Amelia.
3. Willoughby Newton of Westmoreland.
4. Thomas L. Preston of Washington.
5. John R. Edmunds of Halifax.
6. Samuel F. Christian of Augusta.

W. G. Crenshaw of Richmond, Treasurer.

EXECUTIVE COMMITTEE.

William Boulware of King & Queen.
Edwin G. Booth of Nottoway.
William G. Overton of Hanover.
William H. Richardson of Henrico.
Charles B. Williams of Henrico.
Frank: G. Ruffin of Albemarle.
Bernard Peyton of Albemarle.
Richard Irby of Nottoway.
J. Ravenscroft Jones of Brunswick.
B. Johnson Barbour of Orange.

On motion of Mr. Wallace of Petersburg, the Constitution was farther amended, so as to admit of the election of an additional Vice President.

Mr. Wallace then nominated George W. Summers, Esq., of Kanawha, who was unanimously elected the 7th Vice President.

Mr. J. Ravenscroft Jones, from the Committee to whom was referred the subject of the election of a permanent Secretary, made a report, which was approved and adopted, as follows:

The committee, to whom was referred so much of the Report of the Executive Committee of the State Agricultural Society of Virginia as relates to the propriety and necessity of establishing a permanent Secretaryship to said Society, have had the same under consideration, and beg leave to state, that after due reflection, they entirely concur in opinion with the said committee, as to the importance and necessity of immediately establishing such an office; that the various duties which will devolve upon that office in conducting the extensive correspondence which may be necessary to elicit agricultural information, to prepare statistics, and diffuse knowledge throughout the State, will require that a well qualified person should be selected to fill the office, with a salary that will enable him to give his whole time and attention to the subject. We, therefore, recommend that the said Executive Committee be instructed to appoint some suitable person to perform these duties, and affix such compensation, as will, in their opinion, command the talents necessary for the proper discharge of these duties, and to procure suitable rooms for his accommodation.

Mr. Harvie, of Amelia, read a letter from William Townes, Esq., of Mecklenburg, making a donation to the Society, of five hundred dollars, payable in annual instalments of one hundred dollars per annum.

Mr. E. Ruffin, after a few prefatory remarks, offered the following resolutions, which were unanimously adopted:

Resolved, On the motion, and the unanimous recommendation of the Executive Committee, that the thanks of the Virginia State Agricultural Society are due, and hereby are tendered to Charles B. Williams, Recording Secretary of this Society, for his long continued, laborious, untiring, and also, most effective services, freely and gratuitously rendered in his official capacity and otherwise.

Resolved, As a testimonial of the sense of gratitude of this Society for these fruits of public spirit which no pecuniary reward can repay, that the Executive Committee be hereby directed to bestow on Charles B. Williams, out of the funds of the Society, the value of three hundred dollars, of which, a portion, or all, shall be in silver plate, with inscriptions suitable to the object.

On motion of H. M. Nelson, Esq., of Clarke,

Resolved, That the thanks of the Society be presented to Gen'l Wm. H. Richardson for the zealous and effective manner in which he has discharged his duties as General Agent.

On motion of Edmund Ruffin, Jr., Esq.

Resolved, That the cordial thanks of the Society be tendered to the Executive Committee, collectively and individually, for the zeal, fidelity and ability with which each and all of them have, for the past year, discharged the duties devolving upon them.

Resolved, That the thanks of the Society be tendered to the rail road companies for their liberal aid in the transportation of members, and subjects, for exhibition free of charge.

Resolved, That the thanks of the Society be presented to the Common Council, of the City of Richmond, and to the citizens generally, for the enlightened public spirit and praiseworthy liberality of the one in providing such commodious grounds and ample accommodations for the Society's first exhibition, and for the generous and refined hospitality of the other so freely dispensed in the entertainment of the members of the Society.

His Honor, the Mayor of the City, responded to this resolution in eloquent terms, and assured the Society that the City and citizens of Richmond would rejoice in every opportunity afforded them of facilitating the operations of the Society, and of welcoming its members to a participation of their hospitality.

Adjourned, to meet to-morrow evening at half-past 7 o'clock.

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FRIDAY EVENING, Nov. 4th, 1853.

The Society met pursuant to adjournment. The President, after calling the Society to order, rose and delivered the following address:

Gentlemen of the Society,—I rise to return you my thanks for the honor you have conferred upon me, in calling me again to preside over the Virginia State Agricultural Society.

I should be insensible indeed, were I not profoundly moved by this mark of your partiality, by this high honor, proceeding as it does, from this august assembly. Gentlemen of the Society, I have but a word more to say.

A year ago I was called from the retirement of private life—in which I had fondly hoped to pass the remainder of my days—to lead the "*forlorn hope*" in another effort to organize a great State Agricultural Society. My comrades were few, but good and true men, and at the bidding of patriotism, of State pride, of duty and of honor, we went forward, we encountered obstacles, we overcame difficulties, we stormed the breach, we carried the work, we planted our flag, and already the victory has been proclaimed from yonder field,—aye! and has re-echoed even in this Hall!

Again you bid me lead my tried and worthy comrades, and essay a higher and a mightier work—that of elevating and advancing the great interests of Agriculture in our State.

Well might one far abler than I falter, in view of the mighty task imposed. But, fellow-farmers, encouraged by your confidence, and trusting to your support, I yield, however rashly, to the call; and invoking the aid of that Almighty Power who ever shapes our ends, I can only say, in the words, and I trust somewhat too in the spirit, of a gallant soldier of historic fame, when ordered forth in the discharge of duty, even to the cannon's mouth, I can only say, "*I will try.*"

Comrades of the Executive Committee, [turning to them] I shall know how to count upon you.

Gentlemen of the Society, [turning to them] now embodying the mind and moral force of the State, you will press on, you will support our advance towards the ultimate achievement of the great and glorious result.

Mr. N. Francis Cabell, of Nelson, Chairman of the Committee on Branch IX, in the Schedule of Premiums, which proposes to award honarary testimonials for the introduction of any new principle, process or experiment, important to the agricultural interest of Virginia, made a report, which, on motion of Mr. Lee, of Orange, was received with the thanks of the Society.

The Hon. William C. Rives being called upon to address the Society, responded in a short, but feeling and eloquent speech, and concluded his remarks by constituting himself, his wife, his daughters, sons and sons' wives and children life members of the Society, and announced, on behalf of Messrs. Warwick & Barksdale, their munificent donation of two thousand dollars.

Messrs. B. Johnson Barbour, of Orange, J. H. Lacy, of Spottsylvania, and several other gentlemen, being called for by the meeting, delivered stirring and eloquent addresses.

On motion of Mr. Gilmer, of Albemarle, the following resolution was adopted:

Resolved, That a banner shall be awarded to the county from which the Society shall have received up to the time of holding the next annual Fair, the largest amount of money in proportion to its population.

And then the Society adjourned *sine die*.

CH. B. WILLIAMS, *Rec. Sec'y*.

PROCEEDINGS OF THE SOCIETY

At the Show Grounds during the progress of the Exhibition.

On Tuesday morning, the 1st of November, the various Committees of Award completed their organization, and proceeded to examine and compare the subjects for premiums submitted to them in the departments assigned them respectively.

On Wednesday, the 2d of November, the Society assembled in the large central tent at 11 o'clock for the purpose of hearing the Annual Address. After prayer by the Rev. Mr.

Cummings, the President introduced John R. Edmunds, Esq. of Halifax, who, in accordance with the invitation of the Executive Committee, delivered an able and instructive address, which was received with the liveliest satisfaction. John Tyler, Esq. Ex-President of the United States, being present, as the guest of the Society, was then loudly called for, who proceeded, in eloquent and glowing terms, to congratulate the farmers of Virginia upon the scene before him, which gave utterance, in language far more impressive than words, to the zeal and enthusiasm which animated the multitude of the enlightened and patriotic sons of Virginia, brought together from every section of the Commonwealth by this glorious occasion. He exhorted them to *ceaseless perseverance* in the noble enterprise, so auspiciously commenced, of redeeming Virginia from the depression and lethargy under which she has too long labored and of arousing her to an energetic advancement in the cause of improvement upon which she has now entered.

Gen. Winfield Scott and Edmund Ruffin, Esq., were in like manner called for, who successively returned thanks for the spontaneous honors accorded to them, and congratulated their fellow-citizens upon the successful achievements of the Society in getting up an exhibition so creditable to the State and gratifying to the pride of every true Virginian.

On Thursday, the 3d of November, Peter A. Brown, Esq. of Philadelphia, who appeared by invitation of the Executive Committee, delivered an interesting lecture on the course and prospects of the wool market—the statistics of the trade, and on the different qualities and comparative value of wool, illustrated by numerous and rare specimens, collected at great expense, classified and arranged with taste and skill, and designed and adapted to enlighten those of our citizens who are turning their attention to the subject of sheep husbandry.

On motion of Col. McCue, the thanks of the meeting were unanimously voted to Mr. Brown, for his interesting discourse.

At half past 12 o'clock the trial of ploughs and the ploughing match commenced, under the direction of the committee in charge of those subjects, which occupied the remainder of the day.

On Friday, the 4th of November, Ex-President Tyler delivered the following valedictory address to the members of the Society:

Gentlemen of the Agricultural Society:—On me has devolved the task of uttering to you the valedictory address of the Executive Committee on this interesting occasion. It will of course be brief. The important duty will afterwards remain of announcing the various premiums awarded by the Society; and after to-morrow the first great Fair of the Agricultural Society will have mingled with past eternity.

And first let me congratulate you, gentlemen, upon what we have seen and what we have heard since we have been together. The mountains and the lowlands have met in friendly communion, to exchange views and thoughts on the great subject of agricultural improvement, and every region of the State has exhibited the results of its industry in its various productions. Specimens of tobacco, of corn and wheat indicate a capacity in our State to supply food to the starving millions in less favored lands—sheep of the longest wool and finest fleece—cattle, both native and imported, of rare excellence—horses that claim a descent from the "racers of the sun," and the sturdy animals that share with us in the labors of the plough—vegetables of a diversified and admirable character—ores dug from the bosom of the earth, of unsurpassed richness and quality—the inventive genius of our people, as manifested in the exhibitions of their skill—the advance of mechanic arts, as shown in the useful specimens of implements to be seen upon the ground, and the cloths and other fabrics, the product of the needle and the loom—all bear evidence to the richness of our State, and encourage us to press forward in the race of improvement; and can we desire a finer field for our exertions than our own time honored State presents? If you overclimb the mountains and traverse that interesting region, you find stretching far down on the dimpled rivers of the west, a country rich in mineral resources; its hill tops and valleys covered in much of its area with luxuriant grasses on which graze innumerable herds of animals, and possessing a water power to do the manufacturing of the world; re-cross the Alleghany and your eye rests upon a valley rivalling in point of beauty the loveliest regions of earth; inclining gently from its lofty summits, you behold the Alleghany sinking amid verdant and flower-covered slopes, and meeting in the sunlight the broad smiles of the Blue Ridge, its joyous rival and sister. A population comparatively dense, engaged in all the diversified employments of society, here meets the gaze. The hum of man's busy industry, mingled with the lowing and bleating of numerous flocks, bespeak a region far advanced in the arts which embellish and adorn, and the labor which enriches the country. Descending the Blue Ridge to the east, and you enter upon the region of red lands, where flourishes the Tobacco plant, one of the great articles of foreign exchange, and where the farmer gathers into his garners until they are full with the harvest. Below the falls of the rivers the tide-water country invites attention, not only because of its valuable productions, but because of numerous rivers and bays, the capacious reservoirs of a commerce yet to be, which it requires but ordinary effort on the part of the Legislature and the people to advance and increase. Such is the country which God in his goodness has given to you Virginians, and to your descendants; such the resources which he has placed at your disposal; such the talent entrusted to your care. We should but poorly acquit ourselves of our

duty if we could neglect to improve so rich a patrimony—nor can it be denied that individual effort has done much towards the improvement of the land. I am surrounded here by gentlemen who have raised up their land from barrenness to fertility—acres which a few years ago would not have repaid cultivation, are now teeming with production. In fact the most interesting statistical table which could be presented for the encouragement of others, would be the statistics of the wheat crop upon those improved estates for the period of twenty years last past. In that district of country which has fallen more immediately under my eye and in which I reside, it may be safely said that where twenty years ago the crop was told by the hundred bushels it is now told by the thousand. The truth is, that without some change in the course of cultivation and improvement, we should have been driven to emigrate to richer and distant regions, or to have dragged out lives of poverty and wretchedness. The annunciation of a single fact, the result of analysis, viz. the absence of lime from the soil, rescued us and the State from comparative abandonment.—From that moment a new order of things has existed. The roads leading to the West and South are no longer filled, as was formerly the case, with emigrants fleeing from the homes of their fathers to seek their bread in other lands. Plenty presides over the board where meagre scraps of food were before served up. The son cultivates the old homestead, and hospitality once more invites the wayfarer to enter the doors where poverty so lately kept watch. Can too much praise he bestowed on that man who has been the great instrument in the hands of Providence in bringing about this result? The soldier in the embattled field may encircle his brow with laurels; he deserves to wear them, for his skill and bravery have won them—the statesman may deserve the gratitude of his country by a course of unselfish and devoted patriotism, but what can warrior or statesman do to compare with the citizen who, unaided in his efforts, shall from his laboratory, have announced a truth, and by his own example have carried it out and thereby opened the way to the resuscitation and improvement of his native land. The monument of such an one is in the hearts of his countrymen, and the laurels that adorn it shall be green for ever.

Much, I admit, has been thus done by individual effort towards the improvement of the soil—but what can individuals, isolated and apart, accomplish to he compared to the result of united action? Look at the effects of concentrated capital in the various concerns of life. It bids the manufacturing establishment arise, and forthwith the loom and shuttle clothe the naked. It penetrates into the bowels of the earth, and the fire blazes in the hearth to expel the frost; the plough subverts the globe, and the axe fells the forest. It speaks to uninhabited places, and towns and villages and cities arise. It builds the engine and lays down the iron, and the car speeds over hill and plain; it calls into requisition the lightning and makes it the letter carrier "from Indus to the Pole." If such be the results of concentrated capital, shall mind have no affinity with mind in this great work of improving the very *matrix* of every comfort known in life? If gold and silver poured into one common coffer, can build up and embellish, can the united efforts of mind produce no similar effects upon the agriculture of a State? Mind, from which sprung the universe—mind, the great attribute emanating from Deity, and which makes man hut little lower than the angels, can its scintillations when collected and drawn to a focus, be less in their effects than the metal, which but for it would still lie embosomed in the earth. And how is this concentration of the mind to be obtained but by association? It is only by intercourse with the world that each man is active and useful. Separate him from his kind and isolate his mind, and he becomes the naked savage, and wild beasts, no more savage than himself, are types of his condition.

For the first time, Virginians, you have brought the concentrated mind of the State to bear upon this great subject of the improvement of the lands of the State. It is an eminently successful first effort, and would most favorably compare with the long continued efforts of other States. We have now assurances that this is to be no spasmodic effort, to perish as soon as made. The Agricultural Society of Virginia is now a fixed fact, and its benefits are destined to roll over the land in a mighty volume, causing the now desert places to bloom and blossom like the rose, and our beloved State to raise its head proudly among the nations. The voice of the past, proud in historic fame, has been heard and obeyed. The interests of the present resulting in our good, have plead not in vain.

The hopes of the future, so full of unspeakable greatness, spring forth in the heart and ratify this work, which has been accomplished. We look no longer from Pisgah's top, but have already entered upon the fruition of the great heritage of our anxious longings. From this day a new era opens upon us. Our noble State awakens like a giant from her slumbers, and stands erect in all her majestic proportions. I rejoice that I have lived to see this day.

The hour is approaching when we must wend our way to our respective homes. Your neighbors will cluster around you to learn from you the results of your visit here. You will tell them what you have seen, and when next we assemble, they will surely be with us. You will not fail to tell them that Virginia is at length in earnest in the good work which she has so long been seing only in the possible; that she has changed her livery of gray and put on a new suit of green; that the spirit of improvement has commenced her work in earnest, and that Ithuriel has touched her with his spear and that she stands in all her virgin

robes beautiful and lovely, soon to become grand and sublime. For ourselves, we will go back possessed of new energy in the work of improvement. Upon the next meeting of the Society I trust that each and every one of us will have something to bring of the product of our own industry for public exhibition, and thus give evidence that our lives in the interval have not been passed in inactivity. Remember that success is the result of well directed labors. We should adopt no system which is not the result of our own experience or that of others. Even the results announced from the laboratory of the chemists are often deceptive. The processes of nature are subtle in the extreme. She is constantly forming new combinations and undergoing mutation. Man thinks sometimes that he has entered her temple and read from her mighty volume her bidden mysteries—but he who knows most sinks back upon himself with the consciousness, not of positive ignorance, but of how little he does know.

The great farming interest is that which government has most neglected. Instead of being fostered and cherished as the foundation of all others, it has been made the beast of burden for their benefit. The farmer has also stood isolated and alone until very recently—other interests could more easily combine and coöperate in a common end. He, therefore, stood exposed to assaults from all, and it has but too often happened that he has been made the carcass on which the vultures have preyed. Through the associations similar to our own which are formed and forming, he is now in some condition for defence. His employment has also been heretofore avoided by parents in the education of their children. He has been in fact regarded as the inferior in his vocation to those who entered upon other pursuits. This delusion has passed away, and science comes to his aid to elevate, to refine and improve. We have cause, brother farmers, to be proud of our calling. In the language of a great Indian Chief, "the earth is our mother, and on her bosom we repose." Our trust is in that over-ruling Providence which has brought us into existence, and sustains us in our efforts. Our God is evermore present with us, and our communion with him is unceasing. He gives the genial showers that cause the grain to germinate. He gives the sunshine to mature the golden harvest. We hold converse with him during the day, and at night we gaze out upon the over-hanging firmament, glistening with the light of the whole host of Heaven. We go to sleep with the flowers, and rise as jocund day comes tripping over the lawn—its feet bathed in dew, to join in the great anthem to our Maker, which all things having life unite in raising. Have we not cause to be thankful for the lot which has been assigned us? Should we not press forward in the race of life, with hearts buoyant with hope and minds resolved upon victory?

I shall say no more. We separate after a few hours. Meet again at the next annual Fair, and bring with you your wives and children. Come not empty-handed. Let the father and the son and the husband bring with them the products of their industry—and let the mothers and the children bring the fruits and the flowers—types of their own purity. Here is a platform broad enough for all. No party spirit can find place upon it. Let him who comes leave the spirit of discord behind him, and give place in its stead to the catholic spirit of peace with his brother and good will to all. That is the great principle on which this Society is based; and it is consecrated alone to the noble task of beautifying and improving the earth. This spirit stands boldly forth to rebuke all sectionalism—all local strife. It knows no East, no West. It knows only Virginia. Virginia in part and Virginia in whole. It is on its march, and mountains sink before it. It walks upon the waters and the billows become calm. Come up, then, to an altar at which all may worship, and let your offerings be worthy of the altar and the Deity.

At the close of the address the President read abstracts of the reports of the various committees awarding the premiums of the Society, and announcing the names of the successful competitors. The publication of these reports is necessarily deferred.

The Exhibition closed with an auction of such stock and articles as the owners of them desired to expose to public sale.

CH. B. WILLIAMS, *Rec. Sec'y.*

The following tabular statement of subscriptions made to the permanent capital of the Virginia State Agricultural Society, on the night of the 2d November and subsequently, is designed to keep before the public the progress of the enterprise. The amount standing to the name of each county, will be altered from time to time in conformity to the latest authentic intelligence of what may have been accomplished in each, if it shall exceed the sums originally guarantied.

The names of other counties not yet pledged, but which may hereafter assert their claim to a participation in the great work, will be added with the amount raised.

The population of each county will be set opposite to its name, that competitors for the banner, ordered to be prepared by the Executive Committee, may be the better able to judge of their chance of success. Many individual donations and life membersbips remain to be credited to the different counties, which, for want of time, are necessarily reserved for insertion in a future publication of the table.

Amounts subscribed to the Virginia State Agricultural Society, on November 2d and since, in donations from individuals, payments for Life Memberships and guaranties of additional subscriptions from counties and towns.

From which county or town.	Population, 1850.	Amounts Contributed.
Albemarle,	25,654	$1,000 00
Amelia,	9,755	1,300 00
Augusta,	21,616	1,000 00
Accomac,	17,861	500 00
Brunswick,	14,527	500 00
Buckingham,	13,945	1,060 00
Bedford,	24,112	500 00
Bottetourt,	14,909	500 00
Culpeper,	12,262	500 00
Caroline,	18,456	500 00
Charles City,	5,200	250 00
Charlotte,	14,075	700 00
Chesterfield,	17,402	500 00
Clarke,	7,433	500 00
Cumberland,	9,855	500 00
Dinwiddie,	11,106	500 00
Fairfax,	10,682	600 00
Fluvanna,	9,488	700 00
Fauquier,	20,922	500 00
Greene,	4,434	500 00
Gloucester,	10,559	300 00
Goochland,	10,437	600 00
Greensville,	5,627	600 00
Halifax,	25,878	500 00
Hanover,	15,172	920 00
Henrico,	15 605	100 00
Jefferson,	15,375	500 00
Kanawha,	15,354	100 00
King & Queen,	10,152	500 00
King William,	8 794	500 00
Louisa,	16,671	500 00
Loudoun,	22,070	1,000 00
Lunenburg,	11,678	680 00
Madison,	9,332	500 00
Mecklenburg,	20,566	500 00
Montgomery,	8,357	500 00
Nottoway,	8,415	500 00
New Kent,	6,654	250 00
Norfolk County,	18,770	
Nelson,	12,758	500 00
Northampton,	7,396	500 00
Orange,	10,067	600 00
Petersburg,	14,603	
Pittsylvania,	29 078	500 00
Prince Edward,	11,851	500 00
Prince George,	7,595	800 00
Powhatan,	8,171	1,500 00
Pulaski,	5,114	500 00
Putnam,	5,336	50 00
Richmond City,	27,483	7,500 00
Richmond County,	6 443	
Rockbridge,	16,040	
Smythe,	8,162	500 00
Stafford,	9,044	
Spottsylvania,	14,917	520 00
Washington,	14,613	500 00
Westmoreland,	8,080	500 00
Wythe,	12,024	500 00

PAYMENTS TO THE SOUTHERN PLANTER.

From 1st November to 1st December, 1853.

All persons who have made payments early enough to be entered, and whose names do not appear in the following receipt list, are requested to give immediate notice of the omission, in order that the correction may be made in the next issue:

James S. Battle to January 1854	$5 00
Daniel Ammen to January 1855	1 00
Robert Norfleet to January 1854	1 00
R. D. Wimberly to January 1855	5 00
James Fitch to July 1853	1 00
Elbert Le Grand to November 1854	1 00
Josiah Eley to January 1855	2 00
Emanuel Gerst to May 1855	1 00
William L. Oliver to November 1854	1 00
W. R. Bland to January 1855	1 00
W. M. Hannah to January 1855	3 00
S. W. Lackland to April 1854	1 00
William T. Scott to January 1854	1 00
Thos. R. Joynes to July 1855	3 00
Mrs. Martha Cocke to January 1854	1 00
E. Ruffin, Jr., to January 1855	1 00
J. Overby to November 1854	1 00
W. C. Davis to July 1854	3 00
Col. Samuel Drake to January 1855	1 00
Dr. R H. Stuart to January 1855	1 00
A. H. Reams to July 1854	1 00
Gulielmus Coleman to March 1854	1 00
E. Clayton to January 1854	5 00
Berthier Bott to January 1855	2 00
Joseph Segar to January 1854	2 00
C. S. Jones to January 1854	2 00
Colin Stokes to November 1854	1 00
H. C. Williams to July 1854	1 00
Peter S. Roler to July 1855	2 00
George L. Bagley to January 1855	7 00
J. M. Adams to September 1854	1 00
T. H. Eppes to January 1854	1 00
S. Neblett to January 1854	7 00
Dr. W. W. Oliver to November 1854	1 00
S. S. Griffen to January 1854	1 00
Thomas Edmunds to November 1854	1 00
Dr. R. H. Dejarnett to January 1854	2 00
Richard Stokes to August 1854	1 00
George Pannill to January 1854	5 00
John E. Meade to November 1854	1 00
W. A. Armistead to April 1855	2 00
T. B. M'Gehee to April 1854	1 00
William Major to June 1855	2 00
George Bouton to July 1854	1 00
L. T. Barnes to January 1855	1 00
N. B. Gay to September 1854	2 00
G. A. Chaffin to July 1854	1 00
George W. Pettit to September 1854	1 00
Col. R. R. Brown to July 1854	1 00
E. A. Tillman to November 1854	1 00
Dr. G. W. Coleman to November 1854	1 00
N. Alexander to July 1856	5 00
Dr. W. R. Holt to January 1854	1 00
Julien Ruffin to January 1855	2 00
William Sayre November 1854	1 00
M. Goldsborough to January 1854	1 00
J. N. Goldsborough to November 1854	1 00

Edmund Rosenberger to July 1855 $1 00
Gen. W. T. Ballew to January 1854 5 00
Henry Carrington to January 1855 2 00
Col. S. M'D. Reid to January 1855 1 00
Dr. E. A. Coleman to September 1855 2 00
S. F. Harwood to August 1853 4 00
Rev. Peyton Harrison to July 1854 1 00
Com. T. Ap Catesby Jones to Nov. '54 1 00
Hall Neilson to November 1854 1 00
John Hunter to November 1854 1 00
Thomas Carroll to January 1855 3 00
Edward C. Robinson to January 1854 1 00
John S. Hobson to November 1854 1 00
Samuel P. Wilson to September 1854 1 00
Dr. W. S. Morton to May 1855 1 00
James D. Isbell to January 1855 5 00
William D. Blanton to October 1854 1 00
David S. Read to January 1855 5 00
F. Foot to January 1854 3 00
Dr. H. N. Coleman, Sr., to July 1854 3 00
Col. John Lewis to January 1855 1 00
Anthony D. Wren to Sept. 1854 2 00
Dr. Barraud to July 1854 4 00
L. H. Taliaferro to June 1854 1 00
Colin Bass to January 1855 2 00
H. E. Coleman to November 1854 1 00
Richard Gwathmey to January 1854 1 00
Col. Alex. Fleet to January 1854 1 00
Mrs. Susan H. Powell to July 1854 1 00
William G. Buck to January 1854 2 00
Mrs. Mary H. Claiborne to January '54 2 50
Sam'l F. Christian to November 1854 1 00
Henry E Edmunds to January 1854 6 00
John Washington to July 1854 1 00
Thos. W. Meriwether to January 1854 1 00
Hugh W. Mackey to June 1854 1 00
Mrs. Lucy C. Binford to March 1854 1 00
Robert B. Moorman to June 1854 1 00
D. T. Armstrong to November 1854 1 00
William Cowherd to January 1855 1 00
R. F. Hannon to January 1854 1 00
Lewis H. Blair to November 1854 1 00
E. W. Hubard to January 1857 5 00
James R. Gates to January 1855 1 00
Samuel G. Tinsley to November 1854 1 00
Dr. P. B. Pendleton to October 1853 2 00
Waller Holladay to November 1854 1 00
J. W. Wilson to January 1854 8 00
John S. Kemper to July 1854 1 00
S. M Baker to July 1854 1 00
John N. Shields to January 1855 1 00
Lewis Neal to July 1854 1 00
Maj. George Wilson to January 1855 1 00
Dr. William Fuqua to January 1854 1 00
John C. Thom to January 1854 2 00
B. F. Lewis to May 1854 1 00
Joseph H. Prince to November 1854 1 00
Dr. Thos. B. Powell to November 1854 1 00
Dr. H. E. Shore to July 1854 1 00
N. P. Fitchett to January 1854 1 00
Capt. N. Ward to January 1855 1 00
William C. Daniell to November 1854 1 00
H. R. Baird to November 1854 1 00
J. H. Thomas to November 1854 1 00
C. B. Claibourne to November 1854 1 00
John Trimble to July 1854 1 00
C. S. Lacy to November 1854 1 00

F. Fitzgerald to January 1855 $1 00
Dr. G. Fitzgerald to January 1855 1 00
Benjamin Archer to November 1854 1 00
Charles Selden to September 1855 1 00
Col. G. Moseley to January 1854 1 00
Dr. W. P. Moseley to January 1854 1 00
Wm. Fitzgerald to November 1854 1 00
John Keen to November 1854 1 00
Jas. L. Harris to January 1855 1 00
R. Powell to November 1854 1 00
Robert Dunn to November 1854 1 00
W. M. Connelly to November 1854 1 00
Thomas Keith to July 1854 1 00
W. T. Hubbard to November 1854 1 00
T. G. Coleman to November 1854 1 00
H. E. Coleman to January 1854 1 00
James A. Hunt to January 1854 1 00
A. G. Hobson to January 1854 3 00
W. M. Woodson to November 1854 1 00
Dr. Wm. Briggs to September 1854 1 00
Joseph W. Mason to November 1854 1 00
Prof. W. B. Rogers to September 1858 5 00
Wm. H. Basdarn to September 1854 1 00
Nicholas Cocks to September 1854 1 00
Grief Hood to September 1854 1 00
Miss Sarah Nicholas to Sept. 1854 1 00
J. M. M'Nutt to November 1854 1 00
J. H Earnest to November 1854 1 00
P. W. Dudley to November 1854 1 00
Adam Lusbaugh to April 1854 1 00
Joel W. Daniel to January 1854 7 00
John H. Batte to November 1854 1 00
John Saunders to January 1854 2 00
Dr. W. D. Boaz to November 1854 1 00
W. Roy Mason to January 1856 2 00
John D. Johnson to September 1854 3 00
Dr. M. A. Wilcox to January 1854 8 00
T. Pollok Burgwyn to January 1854 7 00
Jas. M. Ranson to September 1854 1 00
W. B. Miller to January 1854 3 00
A. G. Binford to January 1855 1 00
Charles M'Kee to July 1855 3 00
William G. Fretwell to July 1854 1 00
N. Burnley to July 1854 1 00
James L. Dupuy to September 1854 2 00
William F. Plunkett to July 1853 1 38
Dr. Chas. Brown to July 1854 1 00
Isaac O. Perkins to January 1854 2 00
William Tompkins to October 1853 1 00
Robert Rodes to January 1855 2 00
T. J. Michie to April 1855 1 00
R. N. Trice to July 1853 1 00
Jas. N. Stephens to January 1854 1 00
Peter M'Gee to July 1854 1 00
B. B. Garth to July 1853 2 00
John S. Nicholas to January 1854 1 00
Capt. Jas. Hobson to November 1854 1 00
Dr. J. W. Gaunt to January 1855 3 00
S. C. Anderson to January 1855 2 00
Judge R. C. L. Moncure to Nov. 1854 1 00
John A. Roberts to November 1854 1 00
James M. Thomas to November 1854 1 00
Thomas P. Crawford to August 2854 1 00
Joseph A. Earley to Nov. 1854 1 00
Dr. T. H. Venable to January 1853 2 00
Wm. A. Winston to April 1854 1 00
Sam'l A. Masten to Nov. 1854 1 00

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ADDRESS

Of Hon. Willoughby Newton, before the Virginia State Agricultural Society, delivered in the Hall of the House of Delegates on Thursday evening, Feb. 19, 1852.

Mr. President and Gentlemen:

It is not my purpose, to-night, as many of you may perhaps suppose, to speak of practical agriculture. I appear before you, in obedience to the call of your Executive Committee, to discourse of other themes; and I shall be most happy if, with the brief period allowed me for preparation, I shall be able to discharge the duty assigned me in a manner at all acceptable to myself, or in the least degree worthy of this large and enlightened audience.

The occasion which brings us together is one of deep interest to the entire Commonwealth. After years of vain and fruitless effort, and mortifying disappointment, the friends of agriculture are again assembled, I trust, under better auspices, with the hope of establishing, on a permanent basis, a State Agricultural Society, which shall endure for all time, and dispense its blessings to generations yet unborn. The signal failure of all former efforts to arouse the attention of Virginia to the importance of this great subject would deter me from attempting the difficult task, if we were not now surrounded by circumstances that cheer us with new hope, animate us with fresh zeal, and give us, indeed, an assured confidence of the ultimate success of this noble enterprise.

The great civil revolution through which we have just passed has, I trust, obliterated forever all traces of the former differences between the various sections of the Commonwealth. The strife is ended; and whatever may have been our feelings or convictions of right and duty, we of the east no longer brood over our griefs, but are resolved that all our jealousies and heart-burnings shall be forever buried. Now, no Tweed divides a kindred people. The mountain barriers are broken down, and with them the conflicting interests that seemed to sever a people always in heart united. Amidst the greatest excitement, in the very tumults of passion, the hearts of our people have always been right. At no moment has that generous affection which binds brother to brother, ceased to burn in their bosoms. Let the safety, interests or honor of Virginia be menaced from any quarter, and all domestic feuds are forgotten, and the only rivalry that remains is, who shall render the most efficient service, in repelling the common foe. Whether that foe be a foreign power invading our coast, or a domestic enemy assailing our peace and property, we feel that when Virginia calls we have no surer ally than the hardy pioneer of the west.

> "Bravest of men, his flocks and herds are safe,
> Remote from war's alarms, his pastures lie,
> By mountains inaccessible, secured,
> Yet foremost he, into the plain descends,
> Eager to bleed, in battles not his own."

The Society, which we propose to establish, is to be as broad and comprehensive as the Commonwealth itself. Every section and interest of the State will here be represented. The grower of wheat on the banks of the Potomac will here meet the planter of tobacco from the distant Roanoke; and the tiller of corn, who greets the first beams of the morning sun from the golden waves of the Atlantic, will hail his brother who catches its parting ray as it is reflected from the glassy bosom of the beautiful Ohio.

If such an association were productive of no other good than bringing together citizens of distant quarters of the Commonwealth, its benefits would be incalculable. It would remove prejudices, increase our State pride, and enlarge our knowledge of the resources of the Commonwealth, both intellectual and physical.

There is no department of human industry in which the knowledge of inventions, discoveries and improvements, seem to travel so slowly as in agriculture. Manufacturers, congregated in cities and towns, are quick to learn whatever will facilitate their labors and add to their profits; whilst farmers, living in a state of comparative isolation, often remain for years ignorant of the greatest improvements. Thus, M'Cor-

large quantities of tobacco and Indian corn. When, in addition to this, it is recollected, that Pennsylvania has been, for more than half a century, under an ameliorating system of husbandry, whilst in Virginia no general attention has been given to improvement until within a very few years, no doubt can remain of the great natural superiority of Virginia. The census report, too, is of the crop of 1849, at which time the influence of the concentrated manures, now so generally used in Virginia, was scarcely felt. The crop of that year was fourteen million five hundred and sixteen thousand nine hundred and six bushels. From my own observation and extensive inquiry I am satisfied that the crop of 1850 in Eastern Virginia, exceeded that of 1849 at least twenty-five per cent. and the crop of 1851 was, in the same proportion, larger than that of the preceding year. My own crop of 1850 exceeded that of 1849 by more than one hundred per cent. and the crop of 1851 was greater by twenty-five per cent. than that of 1850. I think there can be no doubt that the crop of last year exceeded twenty millions of bushels, and that Virginia may now be put down as the first wheat growing State in the Union, not only relatively but absolutely. There can be no better test of the value of land than its capacity to produce wheat, and taking this as the criterion, our poor old worn out State is certainly not inferior to any in the Union, old or new.*

In Eastern Virginia the career of improvement may be said to be but just begun. We are scarcely in the full tide of successful experiment, yet the striking fact, communicated in the Governor's message, of an increase in the assessed value of the lands, of this section, of more than seventeen millions of dollars, or nearly thirty per cent. in twelve years, is well calculated to startle the croakers and to cause the compilers of statistics to commence figuring anew. This assessment, gratifying as the result must be considered, falls far short of the actual value of the lands; and their true increase in value cannot be rated at less than thirty millions of dollars.

It is very difficult to estimate the intrinsic value of land, and I would recommend to those who have a taste for such investigations, the perusal of a most remarkable essay of Dr. Black of Delaware, published in an early volume of the old American Farmer, in which the subject is treated with singular clearness and force. He maintains that land, being a permanent investment, is intrinsically worth that sum the annual interest of which it will continue to pay in all time, after deducting all the expenses of manuring and cultivation. Taking this principle as correct, which seems to be founded in right reason, the assessment of many of our farms is much too low. The farm on which I reside, for example, which a few years ago cost four dollars per acre, was assessed, I believe, at eight dollars; yet it yielded, the last year, (to say nothing of the incidental profits necessarily arising from a farm on which a large family resides,) *a clear profit in cash*, after deducting all expenses of cultivation and manures, of six per cent. on sixty dollars per acre. And I have no doubt that, under the system now pursued, this profit will not only continue, but be largely increased, in future years. Nor is this an isolated case. Many of my neighbors, upon similar lands, made crops quite as good, and others much better than mine.

There was a time, Mr. President, when we of the east feared the competition of the west, and all schemes of internal improvement were indiscriminately opposed,

* The following statement, from the Census Report, may be relied upon as a near approximation to truth in relation to the wheat crop, which is probably accurately measured; but in regard to the corn crop, is entirely conjectural, most of it being fed upon the ground, and is, therefore, entitled to no reliance.

GREAT WHEAT AND CORN STATES.—A correspondent of the Pittsburg Gazette, writing from Washington, says:

"From the abstracts of statistical returns already prepared at the Census Office, it appears that Pennsylvania, in 1850, was the largest wheat producing State of the Union. I have had the curiosity to compare the six most prominent States in respect to this crop, and give them below, with the crop of each, as shown by the return:

Pennsylvania,	- -	15,482,191 bushels.
Ohio,	- - -	14,967,056 "
Virginia,	- - -	14,516,906 "
New York,	- -	13,073,000 "
Michigan,	- -	4,918,000 "
Maryland,	- -	4,494,680 "

"In the yield of Indian corn, Ohio bears off the palm, or rather she stands *primus inter pares magnos*, for five States stand almost in a line in regard to this important staple. These States and their respective crops are as follows:

Ohio, bushels of Indian corn,		59,788,750
Kentucky,	" -	58,000,000
Illinois,	" -	57,000,000
Indiana,	" -	53,000,000
Tennessee,	" -	52,000,000

"The corn crop of 1850 for the whole United States is returned as over five hundred millions of bushels, a gain of about forty per cent. on that of 1840."

with a zeal quite sincere, but, perhaps, not always according to knowledge. That time is past. We will now endeavor wisely to direct what we have not been able to counteract. Press on, therefore, with vigorous but prudent zeal, your great works of improvement; reach the Tennessee line; tap the Ohio at as many points as you please, and pour down upon the markets of the east, the rich product of your teeming valleys and grass-clad hills. We invite you to a free and generous competition. Nay, more; connect your improvements with kindred works, in other States, until they reach the heart of the great west, and let her vast store-houses be emptied upon the ocean. Yet we shall not be appalled: confident in our own resources, we feel assured we shall be driven from no market in which others can sell with a profit.

Each section has its peculiar advantages; but survey this glorious Commonwealth in all its length and breadth, and tell me in what is it inferior to any of the States of this Union? In a race of brave men, and fair women, none claim superiority.

It is not mine to speak of her inexhaustible mineral resources, of her unfailing water power. We have seen that in the production of the most important of the cereals, she surpasses them all. Her tobacco finds a market in every quarter of the world, where the "weed" has a votary. Her Indian corn is not surpassed, except in that fabulous grain growing region, where the half bushel is discarded, and the only measure is an exuberant imagination. Her horses are equal to the English and superior to the Arab. Hers are "the cattle on a thousand hills." Her wool exceeds in fineness that of Spain or Silesia, and her flocks need only legislative protection from pestilent curs, to compare in numbers with the leaves that in autumn strew her valleys.

These remarks are made in no boastful spirit. Our people have been discouraged. I desire to banish their discontent. And, indeed, we have been so long decried by others that I think it high time we were standing up for ourselves. We have, in truth, Mr. President, "a goodly heritage," and are false to ourselves, and unworthy of the fame of our noble ancestors, if we lack the energy to improve, or the courage to defend it.

Another prominent cause of the failure of all concerted efforts for the improvement of agricultute in Virginia may be traced to an erroneous opinion, extensively prevailing, as to the character and value of our agricultural labor. Originating at a very early day, (perhaps with Mr. Jefferson, who, however wise as a statesman, was not remarkable for the depth of his philosophy, or the soundness of his practical views,) this error soon became general. The doctrine was taught by philosophers, statesmen and political economists, that slave labor was ruinously expensive and unproductive to its owners, and wherever employed, carried barrenness and desolation in its train.

Whatever evils we endured, whether arising from a natural defect in our soils, which no labor could correct, but for which modern science has found a remedy, or from low prices, consequent upon a derangement of the currency, or a general peace in Europe, were attributed to this fruitful source of all our woes. And when, to these causes of discontent, was added the unfortunate disturbance in Southampton, not comparable in its extent or violence to an emeute in Paris, or a theatre mob in New York, or a fireman's riot in Philadelphia, a panic seized the public mind, and madness ruled the hour. The whole vocabulary of epithets was exhausted in denunciation of the hated institution, and the most striking pictures of the decadence of Virginia, which a heated imagination could paint, were profusely scattered through the land. Men of virtue and intelligence in her public councils, seemed to vie with each other in the extravagance of their denunciations. Her gullied hills and wasted fields were apostrophized, and her sighing pine tops invoked to chant a requiem over the departed glory of Virginia. Is it surprising that these views, thus expressed with all the earnestness of feeling and of eloquence, should have deeply impressed the public mind? The consequence was, a general spread of discontent—a feeling that slave property was insecure, and that emancipation, either immediate or prospective, would, sooner or later, be resorted to, as a remedy for the supposed evils under which the Commonwealth was suffering. How far the agricultural interests of the State were retarded by the memorable scenes of 1832 it is vain now to speculate. I rejoice to know that reason has resumed her empire, and that many of the most distinguished actors in that remarkable drama have renounced their former errors.

This subject is too comprehensive and important to be discussed, as a mere incidental topic, in an annual address, and I trust that some gentleman of the Society, of competent talents and information, will, at an early day, thoroughly investigate it, and furnish an essay on the necessary connection between the institution of slavery and the progress of agricultural improvement in Virginia.

The institution of slavery is a fixed fact; and as wise and practical men, it is our duty so to regard it. Emancipation is an idle dream, beyond the reach of human power. Its accomplishment, if it were possible, would be the overthrow, not only of all the material interests of the south, but also of the great fabric of modern civilization. Let us be content with our condition. We have a class of laborers, tractable, efficient and profitable. Without them, Virginia would be a wilderness; with them, we may defy the competition of the world. It is not for us, in the indulgence of a mistaken sensibility, to call in question the wisdom or beneficence of the great Author of our being. Let the institution go on to fulfil its mission; and when, in the providence of God, that has been accomplished, the same Power that opened the waters of the Red Sea, for the exodus of the Israelites from the land of Egypt, can make dry the waters of the great deep, for the passage of the African to his native shores.

Age may counsel, and wisdom may direct, but no great enterprise was ever yet accomplished without the enthusiasm of the young. This we have, heretofore, failed to secure. Nor is this wonderful. The cheerless pictures that have been presented, of the prospects of agriculture, were far from captivating to the imaginations of youths, who, leaving the seminaries of learning, with a high appreciation of their powers, have come into the great world, with a determination to carve their own way to fame and fortune. The policy of the State has caused them to be instructed in every science save that which would be most useful. They come into active life, entirely ignorant of the principles of agriculture, and turn with contempt from a calling, in which they suppose the unlettered rustic can be quite as successful as themselves. They press into the professions, already crowded to suffocation, or try their fortunes in the precarious trade of the politician. It would afford an instructive, though a melancholy lesson, if we could follow the progress of the army of aspirants that have left our colleges in Virginia during the last thirty years, full of hope and expectation, to battle with the world. How many have fainted by the way-side! How many, chafed by disappointment, have turned their backs upon their native homes, to seek in distant lands, what may never be attained! How few have reached the goal of their ambition!

This deplorable waste of talent and energy must be arrested. New ideas must be infused into the old, and new tastes formed in the young. Happily, this process has commenced, and I trust will rapidly extend. Many of our enlightened farmers are showing, by the balance sheet, that the profits of agriculture, in Virginia, are more certain, and quite as large, as those of any other legitimate business. And the demand for scientific knowledge connected with our profession, has been so great, that the University, and some of our principal colleges, have, in deference to public opinion, instituted a course of lectures on agricultural chemistry. This is a gratifying commencement, but falls far short of that comprehensive system of instruction demanded by the spirit of the age.

If my humble voice could reach the throng of noble youths that now crowd our halls of learning, buoyant with hope and panting for distinction, I would point them to our neglected agriculture as the most promising field for the exercise of their talents and the gratification of an honorable ambition. The vast resources of Virginia only await your efforts for their development. With a territory capable of supporting, in comfort, a population of two hundred, she has less than twenty to the square mile. Here is ample room and verge enough for the exercise of all your talents, and, unlike other professions, the greater the competition the greater the profit, in the improvement of the common inheritance of all. Science woos you to her embrace, and an honorable independence and an enduring fame offer themselves as your rich reward. Will you prefer the uncertain conflicts of the bar, or the thorny paths of party politics? What do they offer in comparison with the substantial blessings enjoyed by every enlightened and successful farmer? What do you find in the history of our public men to charm and captivate you? Few have acquired fortune, many have sacrificed their independence; and if, here and there, one has attained to eminence, thousands have returned to their constituents,

like rain-drops to the ocean, never more to be distinguished from the common mass. Nor is agriculture without her triumphs. Ancient history presents many names, illustrious because of their connection with the rural arts. I need not recite them. In modern times what statesman has achieved a more solid reputation than Sinclair, Coke or Arthur Young? In our own State, *Arator* will live when the author of Construction Construed and the Enquiry shall be forgotten. And among all the eminent living statesmen of Virginia, who have, with toil assiduous, climbed the steep ascent of fame, is there one who has attained a reputation as extensive and enduring as the unpretending author of the Essay on Calcareous Manures?

The last cause of disappointment to which I shall refer is the fact, that we have not heretofore been sustained by the cordial coöperation of the Legislature.—Other States have established agricultural schools and societies, with munificent endowments, appointed chemists, geologists, and boards of agriculture, and have manifested by every means in their power, a deep interest in the success of this the most important of all industrial employments. The Legislature of Virginia, amidst this universal progress, has heretofore looked on with listless indifference, as if unconscious of its duties, or unwilling to perform them. Standing here to-night, in the capitol of the State, honored as I am by the presence of many of the representatives of the people, may I be pardoned for inquiring, if this state of things, so injurious to the interests, and so unworthy of the renown, of this great Commonwealth, will be permitted longer to continue? I trust not. The friends of agriculture, here assembled, will doubtless soon present to your honorable body, their reasonable requests. Without anticipating them, I may safely assure you, that they will be such as it is not unbecoming in them to make, or in you to grant. They may ask some efficient legislation for the protection of the rights and interests of agriculture. They will, doubtless, ask an appropriation of money, to be applied to various objects, eminently useful. The wisest economy requires that you should not deny them this. Besides the general benefits that it would diffuse through the Commonwealth, you will receive back into the treasury, at no very distant day, ten dollars for every one that you may appropriate to this object. You have seen that your revenue has received a permanent addition of more than seventeen thousand dollars under the new assessment of the lands of Eastern Virginia alone. This gratifying and unexpected result is mainly attributed, by our patriotic Chief Magistrate, to the unaided efforts, of comparatively a few zealous and intelligent farmers, scattered through the country. What may not be expected, when the countenance and protection of the State government are given to this great interest, and the attention of the whole people aroused to its high importance? Under this fostering influence, the next decade will probably show a farther enhancement in the value of the lands of this section, equal to thirty millions, and a farther increase of your revenue to the extent of thirty thousand dollars, from this source alone. Am I not warranted, therefore, in saying, that wise economy demands this appropriation?

And now, Mr. President, fervently imploring the blessings of a kind Providence on all our endeavors, I appeal to the farmers, throughout the Commonwealth, to come up to this great work, with an ardent and enlightened zeal. I call upon the representatives of the people to do their duty to the Commonwealth and their constituents. I invoke the cordial coöperation of men of all parties and occupations—gentlemen of the learned professions, enterprising merchants, and industrious artisans. I call upon the press, to lend us its mighty influence; upon the old, to give us the benefit of their wise counsels; on the young, to lend us their ardor and enthusiasm; and, finally, sir, in behalf of this noble enterprise, I invoke the potent influence of woman. I call upon the mothers, wives and daughters of Virginia, to encourage, by their countenance and cheering smiles, a calling which crowns the daily board with abundance, and diffuses peace, and happiness, and joy around the domestic fireside.

ADDRESS

To the Virginia State Agricultural Society, on the Effects of Domestic Slavery on the Manners, Habits and Welfare of the Agricultural Population of the Southern States; and the Slavery of Class to Class in the Northern States, by Edmund Ruffin, President of the Society. Read at the First Annual Meeting, in the Hall of the House of Delegates, December 16, 1852.

MEMBERS OF THE VIRGINIA
STATE AGRICULTURAL SOCIETY:

Upon this occasion of the first annual meeting of your body since its organization, and also in conformity with time-honored usage, it is probably expected that something will be said by your presiding officer, laudatory of the past labors, or in hopeful anticipation, thence deduced, of the future prospects of the Society. It is not in my power to apply any such "flattering unction." The efforts of the Executive Committee, and the few other members who have labored to promote the objects of the Society, have not been seconded by much the greater number of actual members, well qualified to render good service; still less have they had the aid or sympathy of the great agricultural community; and our objects and efforts have had neither aid nor countenance, nor even notice of the Legislature of Virginia. In the past session of five months' length, the Legislature did not find time to give the slightest consideration to, still less to act upon, the petitions of this Society, for aid to agricultural instruction and improvement. Even the taxes levied upon agriculture, through the pretended and delusive legal inspections of manures, for relief from which the assemblage of farmers which formed this Society unanimously petitioned, not only still remain in force, but our petition for their repeal has not received the slightest consideration.

We may, and ought to continue to urge the affording of that governmental aid which is justly due to agricultural instruction and improvement. But is not to be disguised that there is but little ground for hope of obtaining such aid from the Legislature of this almost exclusively agricultural commonwealth, which has never yet granted as many single dollars to promote this incomparably the greatest of all public interests, as it has squandered thousands, perhaps millions, for private interests and visionary schemes, and even jobs for selfish and predatory individual interests, under the specious but deceptious guise and name of public improvements and promotion of public interests. The former abortion of a Board of Agriculture, and the recently still-born enactment of an Agricultural Commissioner and Chemist, (enacted, but remaining suspended,) do not deserve to be named as exceptions to the general rule of total neglect of all agricultural improvement and interests.

Perhaps it may be considered as at least impolitic for me, in this place, to express these plain truths. The utterer only and individually is responsible for them, and they cannot be charged to the Society. But in any case, no harm can result from thus stating the truth. Whether, like the idol-worshipper of the ancient fable, we continue to pray to a deaf and wooden deity, or abuse and maltreat it, in either case we will obtain nothing for our object.

Still, if we, the members of this Society, perform faithfully the duties we have undertaken, there is no reason for despairing of our cause. Few and weak as we are, in comparison to the numbers which the great agricultural community of Virginia ought to supply, and even if still continuing without aid or countenance of the government, we alone can render important services to agricultural improvement and progress. All that is necessary for this great and beneficial result, is that each member shall contribute his individual useful knowledge to the general stock. Let but this be done, and we shall do well—even though unaided by the far greater number of our as intelligent and capable brother farmers, and still utterly neglected, in common with all other agricultural claims and interests, by the Legislature of our country. I earnestly invite and urge each one of you all to determine so to act. As an individual member, and in the private capacity in which only will henceforth be my service, I pledge myself to strive thus to labor to promote the great and noble object of our Association, so long as my fast-failing powers, of both body and mind, may permit, and enough fellow-laborers shall continue to aid and further the good work.

Without farther reference to this Society, or its members, I will proceed to more general considerations. The subject upon which I propose now to offer my opinions and remarks, though not strictly agricultural, is of the highest degree of interest and importance to the whole agricultural community of this and the other southern states of the confederacy. This is, the influence of the institution of domestic or individual slavery on manners, intellect and morals, and on the welfare of both masters and slaves; and in these respects compared to the influence of the slavery of class to class, which, in one or other form, either now prevails, or soon will occur, in every civilized country where domestic slavery is not found.

The institution of domestic slavery, its effects, influences and probable consequences, constitute the great and all-absorbing subject of discussion at the present time—of defensive and too often apologetic argument in the southern states, and of aggressive and fierce denunciation throughout the northern states of this confederacy. The subject is as broad and varied as it is important. To be fully discussed it would require consideration in sundry aspects, but of which each one may be treated separately and distinctly. The expediency and rightfulness of slavery may be considered either as a question of religion and morals—of public policy and political influence—or of domestic economy and influence upon private interests and on the habits and manners of society. The former and chief branches of the general question have been already discussed by able writers, to whose arguments I could add no light, even if this occasion permitted so wide a range of discussion. But the latter-named branch has had less attention, or defence, on our part; and as its consideration is intimately connected with agriculture and agricultural interests, in this connection mainly, and as suitable to this occasion, I will now offer some remarks upon the influence of the existing institution of African slavery, on the social qualities, manners and welfare of the agricultural class in these southern states.

This one and limited relation of slavery to agricultural interests, requires a still further division, into 1st: The question of the comparative pecuniary profit of slave labor, or of its absence and its substitutes; and 2d: The question of social and moral advantages and disadvantages. The first of these subdivisions, important as it is to our interests, and certain and easy as would be the demonstration of the result, cannot be here discussed. The superior pecuniary profit of slave-labor is a subject of statistics, of calculation and detail, which would be inadmissible at this time and place. But it is not required to reach the proof through such a course of argument. I may assume as granted and unquestionable, the fact almost universally admitted in the southern states, that slave-labor is in our circumstances, more profitable to the employers, and to agricultural interests, than could be any possible substituted labor. Dismissing, then, this important subdivision of this subject as settled, I will direct my observations to private interests other than pecuniary, as affected by the influence of the institution of slavery.

It has been a fertile subject of declamation and denunciation among the opposers of slavery, that the existence of domestic slavery operated to corrupt manners and morals. Every wide-spread and pervading institution, however beneficial in general effect, must also have some adverse effect or influence in minor points, or exceptional cases. This is true in regard to slavery, as it is in regard to every great institution of public economy, government, morals or even religion. He is a poor reasoner who judges not by general rules, but by the exceptions. And that is the mode of argument generally adopted to oppose and denounce the institution of slavery. The so-called facts or premises, if not either entirely false and impossible, as is generally the case, are but rare exceptions to general rules.

The great economical objections to slave-labor are these: The compulsion of authority, and the fear of punishment, to the slave, are less potent than the pressure of want, and desire of gain, stimulating free laborers. Hence slaves labor less assiduously than necessitous free laborers. Next, with all this loss of effort, still the labor of slaves is so profitable that their owners are tempted by their prosperity and the ease of obtaining a living, to be themselves indolent and wasteful. These are effects which every where follow similar causes. Their existence is certainly a great detraction from what might otherwise be the profits of southern agricultural industry and capital. But when this detraction is urged (as is continually done) by the opposers of slavery to prove the evils of the system, they are in fact but asserting the truths that the labors of the southern slaves,

in general, are lighter, and yet the profits of their owners greater, than in regard to the corresponding classes of laborers and capitalists in Europe or the northern states. Northern farmers who are now thriving by greater economy of labor and products, would become bankrupt if subjected to the waste of both, which is general throughout the southern states. These evils are the effects certainly of slavery—but effects which are the strongest evidence of the greater benefits of the system, and of the falsehood of the charges against it, as a question of profit for the proprietors, or of oppression and suffering of the slaves.

Much is certainly wanting among the agricultural class of the southern states, in education and mental culture; and great have been and still remain the obstacles to the higher attainment of these benefits. This also is one of the attendant minor evils of the institution of slavery, caused by the necessary dispersed residences of the superior class of population. Still, in no other class of cultivators of the soil, whether in this young and great confederacy, or in old Europe, can there be found, in proportion to numbers, so much of mental improvement, enlargement of views, and general information, as in the southern and slave-holding states. In no other agricultural class, throughout the world, are better nurtured or so well preserved the purity of all the domestic and family virtues of daughters, wives and mothers. To the most intelligent and fair judging of foreign travellers and visitors to our southern country, who have had opportunities to observe domestic manners and country society—whether such visitors were natives of Europe or of our northern and slavery-hating states, nothing has seemed more marked and peculiar than facts observed, which were but illustrations of the propositions I have asserted, and necessary results of our peculiar social position. Yet it has not occurred to these intelligent strangers, who have admired and eulogised the domestic manners and refinement of the southern country population, that the main cause, the essential foundation of the permanence of the peculiar merits which they witnessed with surprise and admiration, are due to the institution of African slavery. It is this institution, which, by confining the drudgery and brutalizing effects of continued toil to the inferior race, (and of which the subjection, notwithstanding, has served greatly for its benefit and improvement,) gives to the superior race leisure and other means to improve mind, taste and manners. In countries where domestic slavery does not exist, (or some equivalent condition of society, such as I will advert to,) and where the owners of the soil and all members of their families are necessarily laborers in the lowest departments or most degrading menial services, there may be much industry, greater economy and frugality, and possibly, (under the peculiarly favorable, though transient circumstances of a newly settled territory and cheap and fertile lands,) there may be even much general accumulation of profit and of wealth. But, nevertheless, such a population, of necessity, must be, or in a few generations will become, rude in manners, and greatly deficient in refinement of feeling and cultivation of mental and social qualities. No one appreciates more highly than myself the advantages to a nation of producing and accumulating wealth by the individual members of the great community, and especially, as the greatest public gain, the increase of agricultural production and riches. To advocate and urge the forwarding of the latter results is the especial object of my present service and employment, as it has been one of the most important objects of all my public efforts and labors. Still, God forbid that we should deem the accumulation of wealth—even if from its most beneficial and best possible source, the fertilization and culture of the soil—as compensation for the loss or deterioration of the mental and moral qualities of southern men, and more especially of southern women! And if brought to the hard necessity of choosing between the two conditions, with their opposite disadvantages, I would not hesitate a moment to prefer the entire existing social, domestic and industrial conditions of these slave-holding states, with all the now existing evils of indolence and waste, and generally exhausting tillage and declining fertility, to the entire conditions of any other country on the face of the globe. Our country population would lose largely in grade by exchanging conditions with the industrious, economical and thrifty Flemish farmers—long and deservedly celebrated for the excellence of their agriculture, and who yet, beyond the routine of their regular work, are almost as uninformed as their most ignorant hired laborers. Far worse would be a change to the condition of the proprietary class of France, among whom land generally is so minutely subdivided, that its possession is usually accompanied

by all the toils and privations of day-laborers to the farmer and his family, and of course by the ignorance, coarseness of manners, and moral degradation, which are the necessary consequences of such unceasing toil, exposure and privations. In Britain, it is true, that with much of gross ignorance and rudeness of manners among the lower class of farmers, and with all the agricultural laborers, there are, in the higher classes, both of proprietors and tenants of lands, many persons of high intellectual attainments. But this exception to the general rule is owing to the almost universal mode of tenure of the landed property in that country, and the usual separation of its possession, as capital, by men of wealth and leisure, and the conducting of the cultivation by tenants upon rent. Even many tenants are men of wealth, who find it more profitable, as tenants, to conduct very large agricultural operations and capital, than the being proprietors of small farms, and upon a necessarily very limited scale of operations. These causes are there further aided in operation by the high price of land, which keeps it in the possession of the wealthy and educated, and also the great plenty and cheapness, and degradation, of agricultural labor—much cheaper in that thickly populated country than our slave-labor. Of these several conditions of British agriculture, serving to improve and refine the higher agricultural classes, and only the higher classes, not one exists in this country, or possibly can occur for centuries to come.

In the northern and north-western states of the confederacy, there are also to be found, (as yet, though they must certainly and soon disappear,) many proprietors and cultivators of land who are men of education and intelligence, and whose wives and daughters have a high degree of refinement of manners. But in nearly every such case, it will be found that this intelligence and refinement were derived from some previous and different training and position; and that these qualities have been so far retained in agricultural life by the large agricultural profits and accumulations of wealth available in a newly settled country. But even now, the general condition of the agricultural class in these non-slave holding states is much lowered, and tending to what must be hereafter a state of general and deep degradation, in intellectual and social qualities. And with them, the degradation will not stop when as low as that of the tenantry of England, or of the boors who reap rich harvests from the fat soil of Belgium. The comparative poverty of soil in the older northern states, and the general and repeated divisions of property therein, by inheritance, indicate a future condition of the proprietors more like to that of the wretched and ignorant proprietary class of France.

Even now, it is comparatively a rare case in the northern states to find, what is so common in the southern, a highly intelligent man, with a well educated and refined family, all natives of and still residing in the country, and belonging strictly to the agricultural class. Such persons have little inducement to remain in (and still less to commence) country life and agricultural employments in the northern states. And should any such, perchance, be so situated, they must either abandon their pursuits and their locality, or be content that their children shall sink to the general level of the surrounding residents, in coarse manners and uncultivated intellect. A sufficient proof of the working of this law of circumstances is presented continually to the world in the contrast of the representation in Congress from the country districts of the northern and southern states respectively. The most distinguished men, and especially statesmen, of the south, have (at least) as often been natives and continued residents of the country as of towns—and in talent and in numbers they have far exceeded all from the north in our public councils. In the northern states there are indeed many men of the highest talents, education and learning—and, it may be, in the latter respects exceeding any in the south, because of the greater advantages offered by great cities for literary and scientific pursuits. But these great men are either produced in or gathered to the great cities only. They are men who have acquired their just renown either as lawyers, physicians, divines, or professors in scientific and literary institutions. All of great intellectual power that now exists in the great states of Massachusetts, New York, and Pennsylvania, is to be found in their populous cities only—and almost exclusively in their respective great capitals. Some truly great men may be (and sometimes are) furnished from these cities to aid the public councils. But never does one such come from all the twenty-fold greater country and village constituencies—which even when disposed thus to honor the highest talent (which is not often the case, either in town or country—north or

south)—could not possibly find among themselves any high talent to honor. The difference between the intellectual conditions of the northern and southern agricultural population, is the cause of the usual long existing and well known commanding influence in the federal government of the southern states, through their representatives, in whatever measures of national policy are directed by wisdom, or intellect, or for the benefit of general interests. But we are now much the weakest in votes, and in whatever of public policy is connected with sectional interests, or still baser private self-interest—superior intellect has no influence, and we are governed by the brute force and cupidity of superior numbers.

The peculiar defects of northern agricultural labor in its influence on social and domestic relations, do not (as yet) forbid great pecuniary success in agricultural pursuits. Indeed, when no far-reaching intellectual power is required to devise or direct a system of culture or improvement, or while enough of such direction, derived from former influences, yet remains in operation, the returns of agricultural capital are even increased by the existing condition of things in the northern states.

A farmer or planter of the south, not rich, but in independent and comfortable circumstances, gives a portion of his time to social and mental occupation. Perhaps his whole object in seeking such relaxation is present enjoyment. But the final result is not the less improvement of mind and manners. His sons and daughters grow up under these advantages and influences of social communication. And, if in the end, because of such indulgences of a family, even though moderately and properly enjoyed, there may be less money accumulated, there will be acquired other values much more than compensating the difference of pecuniary gains. Elwood Fisher, (in his excellent lecture on "The North and the South," (has observed most truly that the ordinary social intercourse of the people of the south serves admirably as a school of instruction. Quoting by memory only from this profound thinker and able advocate of southern institutions and rights, I am not sure whether I am indebted directly to his expressions, or indirectly, (by deduction from them) for the opinion which will here be added—that this social school, in its operation for improving manners and morals, for enlarging observation and thought, and for affording general and useful information, is far better than the much lauded common-school education of the New England states. Spelling, reading and common arithmetic are indeed necessary and excellent first steps in the pursuit of useful instruction and knowledge. But he who goes no farther in the pursuit, might as well have not moved at all.

A farmer of New York or Pennsylvania, in like moderate, but independent circumstances as to amount of property to those just supposed for the southerner, would be compelled to be one of his own continual laborers. His wife would be the most unceasing drudge on the farm. His sons, and not less his daughters, would be brought up to continued labor in the lowest and most repulsive employments, and without any improving, social intercourse, because its cost could not be afforded. Under such circumstances, aided by the usual accompaniments of industry, frugality and parsimonious expenditure, wealth may and probably will be increased. But the possessors will seek and find nearly all their objects and pleasures in such accumulation, and they, or the next generation, will descend as much in refinement and intellect, as the stock of wealth may be increased. Such a proprietor, in mere money valuation, is just so much the richer as the value of the wages of himself, his wife, and his children, as day-laborers on the farm, or in the house. A life of continued, moderate and regular labor, is not a life of pain. When encouraged by the prospect, and rewarded by the fruition of gain, it becomes a life of pleasure. Thus the accumulation of wealth, by an industrious northern farmer, does not usually induce any intermission of his early labors, or change the habits, labors, or training of his children. When he may have acquired $30,000 worth of property, he continues to labor as steadily, and to live nearly as rudely as when under the pressure of his early poverty. His son still drives his father's wagon or his hogs to market—in no way distinguished in appearance or habits from the other hired laborers. His wife is still the most laborious domestic drudge. His daughters have no improving society, and their daily and continuous employments are those of menial servants—whose services it would be too costly to hire.

This is the general condition to which agricultural society and manners must tend, are tending, and have already reached, to great extent, in the older non-slaveholding states. This is the condition from which we are saved, and immeasurably exalted,

by the subjection and slavery of an inferior race. The superior race here is free. In the so-called free countries, the far greater number of the superior race is, in effect, enslaved, and thereby degraded to a condition suitable only for a race made inferior by nature. There exists slavery, or the subjection of man to man, in every country under the sun, except, perhaps, the most barbarous and ignorant. In these southern states we have the slavery of individual to individual, and of a naturally inferior to a naturally superior race; which, of all, is the condition best for both masters and slaves. In the so-called free countries, in addition to the sometimes most oppressive rule of a despotic and grinding government—or it may be under free constitutional government, there is the slavery of class to class—of the starving laborers to the paying employers. Hunger and cold are the most exacting of all task-masters. The victims of hunger and cold are always, and of necessity, slaves to their wants, and through them, to those who only can supply their wants. The great argument urged by English and northern advocates for the abolition of our system of slavery, (while totally regardless of their own) is that hired labor is cheaper than slave-labor. And this is unquestionably true, as to both Old England and New England, and all other countries where the formerly existing domestic slavery has been abolished, because (and only because,) it had ceased to be the most profitable to the slaveholders. Whenever continued severe suffering from hunger and cold, and the number of the sufferers, compel the destitute class to compete eagerly with each other in lowering the wages of their labor to obtain bread, then the payment for such labor of so-called free men necessarily becomes cheaper than would be the support of a domestic slave. Of course, if domestic slavery then remained in that country, the owners of slaves would hasten to get rid of them, and to employ instead the cheaper labors furnished and tasked and driven by hunger and cold. Thus, and for these reasons, acted our English ancestors, when manumitting their white slaves. Thus, and still better for their own interest, did our northern brethren. For when convinced that domestic slavery was too costly in their wintry region, they first sold their negro slaves to the south, and while thereafter avoiding their costly use, they continued, as long as permitted by law, to steal new supplies from Africa to sell to the southern states. If the former southern demand for Africans still existed, and the African slave trade was open by law—or if it were safe and profitable to violate the new probibitory law—enough of our northern brethren would be now as ready as ever to supply the demand. And if their access to the coast of Africa was prevented, they would be as willing (if safe and profitable,) to supply all the south with slaves, by kidnapping the subjects of their now desired ally, the negro emperor of Hayti.

Nearly all of the many vessels which have been engaged in the African slave trade, in violation of the prohibitory laws of the United States, were fitted out for that purpose from northern ports and by northern capital, and were manned by northern crews. This trade, since being prohibited and made piracy by our laws, has been carried on to supply slaves to Cuba and Brazil, with incomparably more inhumanity and cruelty, than attended the formerly legalized and regulated traffic. From time to time, we have seen announced the detection of sundry vessels, or persons engaged in this now atrocious business of torture and murder in the sea voyage; and legal proceedings have often been commenced against the supposed offenders in the northern cities to which they respectively belonged. But in not one such case have I ever heard of the conviction followed by due punishment of any of these worst of criminals. And when such detections of these acts of legal piracy are announced in northern newspapers, it is usually done in as few words as would serve for any other commercial occurrence, of innocent or legal character. Yet, besides the illegality of the trade, any one such voyage, made by the order and funds of merchants of a northern city, would furnish more true facts of suffering, crime and horror, than could possibly occur among all the slaves in the southern states in the same length of time. No furious popular and philanthropic indignation has been aroused against these detected pirates—neither the crews and their commanders, nor the rich capitalists, who were the owners and real traders, torturers and murderers. The great gain of the trade seems to serve as a veil and excuse for its deep iniquity. D'Wolf, who was alleged and believed to have been one of the great slave-trading capitalists of Rhode Island, (while the trade was yet legal,) was not therefore the less a leading man of that state, as is evident from his having been subsequently elected

by its Legislature to the Senate of the United States. If any such African slave trader had lived in the southern states, all his wealth would not have lifted him to a respectable position; and he could not have obtained the lowest office, from either people or government, as readily as did his compeer of Rhode Island attain the highest official station, and I suppose the highest estimation, in slavery-hating and puritanical New England.

There are still other kinds of slavery besides those produced by force, and by want and suffering. General ignorance leads to the corruption of a people, and of subjection of mind to mind. And this kind of slavery, as it is in effect, tending to the most awful political and national evils, is already growing rapidly in the so-called free northern states. It is in their circumstances—of the land cultivated and owned by an unenlightened and still deteriorating country population—of large cities, in which, with a few men of highest intellectual powers, or popular influence, there is collected an enormously predominating number of ignorant, needy, and unprincipled men—when a very large proportion of the population of these cities is composed of newly arrived foreigners, often vicious and turbulent, and necessarily unacquainted with the principles of free government, and unused to freedom in any form—I say, it is certain, in such circumstances as these, that the body of the people will be directed, governed, and in effect enslaved by a few master-minds—and these minds generally acting solely for the promotion of base self-interest and personal aggrandizement. No safe-guards in written constitutions can preserve such a people from being made the tools and slaves of able political knaves and unscrupulous demagogues. With such population of both towns and country—with such influences at work, and their tendencies—with such unprincipled leaders and managers, and such followers—in the great state of New York, political liberty, in effect, is already at an end; and individual property, and even life, are unsafe. If the doors of every dwelling house in the southern country were left nightly without locks, or bolts, and if every slave on each farm had full command of deadly weapons, (and both such circumstances, in effect, are real in innumerable and continuing cases,) our property and our lives would be much safer from any attempts thereon by our slaves, than soon will be the property and lives of the wealthier people of New York from their fellow-citizens, notwithstanding all the protection afforded by the constitution and laws of their nominal free government. Indeed, the beginning of this terrible consummation is already clearly indicated in the successful progress of the anti-rent-paying combination and movement of the state of New York. For many years, numerous occupiers of rented lands have openly and avowedly leagued to withhold the payment of the rents due to the proprietors, and yet hold to the land. The laws have been trampled upon by this felonious league, and the decrees of courts frustrated or silenced. The agents of the proprietors and creditors have been outrageously maltreated, (as would have been the principals, had they dared to appear,) and the officers of justice, when attempting to enforce legal processes, have been resisted by arms, and in some cases have been murdered by these defiers of the laws. Growing more powerful and bold with time and success, these anti-renters have assumed a political position and organization, and thus exercise great influence in state elections. And as a crowning act of triumph, they were enabled to secure the election of a candidate for the chief magistracy, upon the understood engagement of that candidate that he would prostitute his pardoning power as governor, to discharge from the state's prison some of the most desperate felons of the anti-rent party, who by rare chance had been convicted and sentenced to punishment in that confinement. Whether this corrupt and most vile pledge had been expressly given or not, it was charged as being understood, and was acted upon by the anti-renters—and was faithfully redeemed by the governor so elected, by his speedy pardon of the desperate criminals, for whom his aid had been thus sought to be purchased.

In these so-called free northern states, there are two powerful and counteracting influences at work, each tending to establish a very different kind of class slavery. The ultimate fate of these states will depend upon which of these two adverse influences will move the faster towards its own peculiar evil and calamitous conclusion. Either the laboring population will be enslaved, through want and suffering, to the employers and capitalists, (as is already complete in Britain and other old countries where individual slavery has ceased—) or otherwise, if popular licentiousness, or demagogue rule, is too strong

in opposition to capital, then the spirit of agrarianism, communism and anti-rentism—all tending to anarchy and the destruction of the rights of property—will govern. Then may be looked for such regard to property, liberty and life, as was seen in the like calamitous time of the Reign of Terror and of Robespierre.—This latter end will be more likely than the former to mark the last scenes of the tragic farce of free government in the state of New York especially, and of the northern states generally. If they are to be saved from this threatening consummation, it will be by the protection of the federal union—and that only permitted and exerted by the operation of the conservative influence of domestic slavery on the government and policy of the southern states and through them on the whole confederacy. That conservative influence, serving as "the balance wheel of the government," (so-called by a great statesman) has already had much beneficial influence. Should that remote and unseen, but not the less real conservative influence be lost to the northern states, by either the abolition of slavery, or by their separation from the southern states, then the downward career of the northern states will become more and more rapid into one or the other of these abysses of class slavery which have been named. Should the anarchists and the mob, under their master demagogues, obtain the victory over capital, how that victory will be used has been already indicated in the acts of anti-rentism in the state of New York, the murderous riots of the cities of New York and Philadelphia, and the burning of religious edifices, inhabited only by defenceless women, by the people of the "law-abiding" and pharisaical city of Boston—and all followed by either the partial or complete impunity of all these flagrant violations of law, justice and humanity.

One of the great benefits of the institution of African slavery to the southern states is its effect in keeping away from our territory, and directing to the north and north-west, the hordes of immigrants now flowing from Europe, and which accession of population has already so much demoralized not only the states receiving the largest supplies of such population, but the federal government itself. Every political aspirant, aiming for the highest offices, deems it to his interest to conciliate and attempt to bribe to his support, this new and enormous element of political power. Hence we see unprincipled, but not the less influential and dangerous aspirants for presidential honors, competing with each other, as to who shall offer the highest bids for this support, in bestowing the public lands gratuitously on immigrants from all the world. It will not be long before this foreign power so fostered and increased, will be so strong, that the grants, conditions, or acquiescence of the government, will be altogether superfluous and worthless.

Far is it from my intention to stigmatize any of our population upon the ground of foreign birth. We should value men for their known merits, and not for their places of nativity. We ought to feel even the more indebted to a good citizen, or a public benefactor, if a foreigner, who had sought our land and government from preference, than if the mere accident of native birth had placed him in our country. Hence we are the more indebted for the services and talents and the patriotism of Montgomery, Charles Lee, Hamilton, Lafayette, Kosciusko, Pulaski, Gallatin and Soulé, as foreigners, than if they had been among us by birth, instead of by preference. To hundreds of thousands of immigrants from Europe our country has been greatly indebted for their useful private or public lives. But I speak of classes, and not of individuals—of the general rule, and not of its exceptions. Taken altogether, the recent and present immigration from Europe is lower in intelligence than the lowest class of native citizens, and immeasurably inferior in knowledge and appreciation of the principles of free government. An infusion of such new population, amounting to a small minority only, could do no political harm. But the danger of prospective evil is enormous, when this new population can control entire states, and, if not able to elect a president, is so powerful as to be offered bribes for that purpose by every ambitious and unprincipled seeker of the office, who can so influence the legislation of the Congress of the United States.

The pretended philanthropists of the northern states are well aware of the effects which the success of their efforts for the abolition of southern slavery would produce. The Wilberforces and Clarksons and Benezets of former times doubtless were deceived, and believed all they professed as to the expected beneficial results of negro emancipation. But since the experiment of Hayti, now of fifty years' standing, and of others of later date, in the

British West Indies, and all the latter made with the utmost care and under the most favorable auspices, no abolitionist of good sense and information can believe in the benefits of emancipation even to the slaves themselves, or in the fitness of the negro race for freedom and self-government. The present leaders in this northern warfare against southern slavery are actuated much less by love for the slaves than by hatred for their masters. Their lust for political power is a still stronger operating motive than either. They know that the complete fruition of their machinations would be to reduce the southern states to the condition of Jamaica, if not to the still worse state of Hayti. If they, or other as malignant and more powerful enemies, should ever succeed in abolishing this institution in these southern states, it will not only be the utter ruin of these states, but one of the heaviest blows to the well-being of the world—the most powerful obstacle to the settlement, culture, civilization, and highest improvement of all this western continent, and the extension of free government and the true principles of freedom among all the superior races capable of appreciating and preserving those blessings. And even the northern states, all of which are now desirous, if not striving for the abolition of slavery in the south, would be, next to the southern states, the greatest losers by that result, both in their pecuniary interests and political safety.

If there is any existing institution of divine origin, and manifestly designed and used by the all-wise and all-good Creator to forward his beneficent purposes, slavery, and especially African domestic slavery, is such an institution. Personal slavery has existed from the earliest known existence of society. Slaves were held by the most virtuous and the most favored of God's ancient worshippers and servants.—Slavery has ever been the means, if it is not the only possible means, of civilizing barbarous tribes and regions, spreading the culture of the earth, and instructing the most ignorant and degraded races of men. Still better and peculiar features belong to African slavery, under civilized and white masters. By this, a race made inferior by nature, and always enslaved to barbarous and cruel masters, was raised greatly in the scale of comfort and happiness, as well as of improvement. Civilization and Christianity have thus been communicated to millions, who otherwise would never have heard of either. By aid of negro slavery only, could these southern states, and still more the tropical regions of America, have been settled and cultivated by the white race. All that has been done in the south, and much of all done even in the northern states, for industrial and moral improvement, refinement and even religion, has been more or less due to the existence of African slavery. For even all the older northern states had the benefit of this institution at first, when it was most needed, and retained it as long as it continued to be beneficial, and until the now fast growing slavery to want began to operate as a substitute.

It is true that the institution of slavery is attended by many and great particular evils. And where is the great social institution which is not? Even in the blessed relations of husband and wife, and of parent and child, there are cases of great unhappiness and evil, and crime, growing out of these very relations. Yet, because there are husbands and wives, and parents and children, who are monsters in human shape, and who can avail themselves of these respective characters to perpetrate the most horrible crimes, and inflict the direst calamities on helpless and innocent sufferers, who would, therefore, condemn, and strive to abolish, the institution of marriage, or the subjection of children to parents? The legal institution of apprenticeship, prevailing among every civilized and refined people, is precisely slavery, only limited in the time of duration. In this generally beneficial relation of master and apprentice—and not less among the northern philanthropists than elsewhere—there occur numerous cases of great injustice and cruelty, and of extreme and unmerited suffering. Yet, who, among these even sincere worshippers of a sickly philanthropy, has proposed as the proper safeguard against such particular cases of oppression and crime, the abolition of the entire system of apprenticeship?

Judging from the early existence and continued duration of the institution of domestic slavery—its almost universal extension—its beneficial influence in subduing barbarism and savage indolence and ignorance—in inducing the culture and improvement of the earth, and promoting the industry, civilization, refinement and general well-being of mankind—it seems to me an inevitable deduction, that the institution of slavery is as surely and manifestly established by the wise and benevolent design of God, as the institution of marriage and of parental rule—and it is next to these, and inferior to these only, in producing important benefits to mankind. To the direct aid of domestic slavery, every cultivated portion of the earth owes its first improvement, and every civilized people their first emerging from barbarism. The only exceptions to the existence (past or present,) and operation of this great element of improvement, are to be found among the most rude and ignorant of savage tribes, such as the aboriginal inhabitants of North America and Australia. And if it had ever been, since the creation of man, that all mankind had been sunk in that lowest depth of barbarism, they would have so continued to this day, if without the aid of the institution of domestic slavery, for their improvement, or otherwise, the still more direct exercise of the miraculous, as well as benevolent power of Almighty God.

ADDRESS

Of Philip St. George Cocke, Esq., President of the Virginia State Agricultural Society, delivered at a General Meeting of the Society, held in the Hall of the House of Delegates, on Thursday, 10th of March, 1853.

Gentlemen of the Agricultural Society:

I cannot, for the first time, take the chair as President of the State Agricultural Society, without returning to you, as I now do, my unfeigned thanks for the honor conferred upon me; an honor, however, which I feel to be quite unmerited on my part, and for which, I fear, I shall be wholly unable to make any adequate return in the way of services to be rendered in the good cause of your Association; an honor which I would most gladly have seen conferred upon some other and far abler member than myself. But relying upon the indulgence of the Society and encouraged by so marked an expression of your partiality and of your wishes, I enter upon the duties assigned me, and for their discharge I can only pledge to you the exertion of my humble but best and zealous efforts.

This meeting, gentlemen, has been called by the Executive Committee of your Society, who have resolved to make another and a strenuous effort to resuscitate the Society from its past and present languishing condition.

The friends of agriculture from every part of the State have been invited to convene in this city, and at this time, to cooperate with the Committee in this arduous but interesting and patriotic undertaking. And I am happy to be able to congratulate you upon the hearty response every where made to this call, evinced as well by the numbers as by the zeal and intelligence of this meeting.

Gentlemen, we have called you here to aid in this work of reviving our State Agricultural Society; of placing it upon a permanent and useful basis; to cheer us by your presence and your sympathies; to aid us with your counsel, and to support us by your numbers and by your means.

The Committee have rightly judged that a spirit of inquiry and improvement—a desire for progress has at last come to diffuse itself through our agricultural classes. The fruitful seeds of this spirit have been long since scattered broadcast through our community by such leading minds as those of John Taylor, of Ruffin, Skinner, Garnett, Newton and others. Chemical science, too, steadily advancing since the days of Sir Humphry Davy, now pours a flood of light across the pathway of the mother of arts. Improved machinery comes to lighten the labors of the field. Manufactures convert to a thousand uses the increased fruits of the earth. Works of internal improvement carry a market to every farm, whilst an expanding commerce lays the whole world under contribution as consumers of the products of our agriculture.

At a time and in the midst of circumstances so auspicious we come to invite the organization and coöperation of the agricultural interests throughout the State.

We know that this thing has been attempted before—and that all such attempts have hitherto failed. But we know, too, that never before did so hopeful, so bright a future reveal itself as that which now invites the scrutiny and stimulates the exertions of every enlightened agriculturist throughout our good Old Dominion. We perceive that a new day has dawned, that a new spirit is awakened, that young and vigorous hands and hearts are enlisted and enlisting in the cause of agricultural reform and improvement, whilst science, wisdom and experience are ready to direct every movement and to insure the most successful results.

Why, at this very time there are not less than a dozen State Agricultural Societies in the Union—each having its numerous County Societies, and all working harmoniously, prosperously and advantageously. Several of these societies—each publishing annually a valuable volume of transactions—thereby collecting, diffusing, and perpetuating a vast amount of valuable statistical and agricultural information—each society eliciting the labors of the best minds in both the science and art of agriculture—stimulating a generous and en-

lightened rivalry in all the practices of the best husbandry—organizing and conducting annual cattle shows and agricultural fairs, at which are exhibited the most improved specimens of the various species of domestic animals—of the fruits of the earth—of domestic manufactures—and of agricultural implements and machines—and at which all the farmers of the State, their wives, their sons and their daughters, come together as to a great national jubilee, to return thanks to a kind Providence for the overflowing fruits of their labors—to greet each other as members of a common fraternity—to interchange all the courtesies of life—to extend acquaintance—to strengthen friendship—to acquire and to impart information—and to concert and to carry out measures for the still further progress and improvement of the great art of agriculture.

And what others have so happily done, can we not and shall we not also do?

Let us take courage, too, from the vast progress going on throughout the civilized world in all the arts of life akin to our own.

Steam, clippers and caloric ships have bridged the oceans from continent to continent, and brought all mankind from the remotest corners of the earth into one great family of nations. The art of printing is spreading the Gospel of Peace to "every kindred, tongue and nation," whilst it is diffusing the lights of truth and of knowledge even to the darkest abodes of ignorance and of heathenism. Commerce is spreading her free wings before every breeze of heaven. The railroad and the telegraph are binding the interests of man to those of his fellow-man with hooks of steel. Science has found the golden key to Nature's laws, and the genius of the mechanic arts is every where yoking these laws to her uses, and thereby substituting mind and machinery for manual labor.

The boundless treasures of California and Australia are causing an exodus of the old nations of Europe and of Asia, which are pouring out a flood of emigration, such as the world has never before witnessed, building up great cities and nations in less than the period of a single generation, and in countries which but as yesterday were howling wildernesses, whilst a brilliant and life-giving flood of gold pours through every avenue of commerce, as if to gild these vast triumphs of mind over matter.

Already at the very dawn of this glorious day of progress our merchants have become princes, our manufacturers prosper beyond all precedent, without tariffs to pamper them and to oppress others—and even the mechanic and the day laborer are seen rising in their strength and proclaiming rule and law to their employers.

Our agriculturists alone seem stationary in the midst of this otherwise universal and splendid progress. But they, too, are beginning to catch the spirit of the age, and to the discerning eye a brilliant future begins to dawn in light and life and hope, over the whole field of agricultural science and art; and the intelligent mind, whilst contemplating the improvements, progress and triumphs destined to be achieved by the mother of all the arts, may well glow with hope and enthusiasm.

The high objects of our Association are to promote this progress and to hasten this future—to extend the science and to perfect the art of agriculture—to give dignity and influence to our profession, and to place it in the rank and on the level of the learned professions—to add to the wealth and to the resources of the State, and to diffuse virtue and intelligence, abundance and happiness, throughout our rural districts.

Such, gentlemen, are some of the incentives to action, and such the important and patriotic objects towards the attainment of which we earnestly exhort you to aid us by your talents, by your time, and by your material means.

And should it be asked, by what measures we purpose to advance these great interests of agriculture? we reply—

By the permanent establishment of a State Agricultural Society, thoroughly and efficiently organized and amply endowed by the voluntary and liberal contributions of its members. A Society, capable of performing all the important functions of representing in an organized and influential manner, the agricultural interests of the State; of eliciting and rewarding, chiefly by honorary means, the best talent in our profession; of awarding premiums for the best essays upon both the theory and practice of agriculture, for useful discoveries, inventions and improvements, and having the means of procuring useful seeds, plants, shrubs and trees; for defraying the expenses of an annual Cattle Show and Fair, and of publishing a yearly volume of Transactions.

By the organization of county societies, connected with the State Society, and required to report annually to the Society such of their proceedings as may be deemed

of general interest, and to collect and report accurate and full agricultural statistics of their respective counties.

By encouraging the establishment of agricultural schools, in which shall be taught the science and theory as well as the practice of agriculture.

By advocating the endowment of agricultural professorships in our Colleges and in our University, where all the physical sciences may be taught, together with their application to our own profession.

By defining and establishing, for the education of our sons, a reform in the present ecclesiastical system of collegiate education, so as to substitute in its stead a system more in harmony with the principles of the Baconian philosophy; a system which shall invite the scholar to the study of nature and of nature's laws, which shall impart to him a knowledge of men and of things, even at the risk of leaving him less learned in the dead languages, and in mere words and abstractions.

By giving support and circulation to agricultural and periodical journals, some of a high and scientific character, others popular and practical.

By asking of the Legislature the means necessary to maintain the organization of our State and county societies, and also for the support of a State Agricultural Chemist, who shall be selected, appointed, and controlled wholly by the State Society.

By effecting the repeal of all laws injurious to the interests of agriculture, and by causing such further legislation as may be required by these interests.

And by such a thorough organization of the numbers and influence of our class as will enable us at all times to bring that influence to bear in a manner commensurate to the extent of our numbers and of our rights, and whether upon the legislation of the State, upon the society in which we live, or upon the great interests which we represent and support.

With these brief remarks explanatory of the chief objects of this meeting, as connected with the more extended aims and purposes of our State Agricultural Society, I most cheerfully give place to a gentleman who I am happy to say is present and who will address the meeting more at length upon kindred subjects.