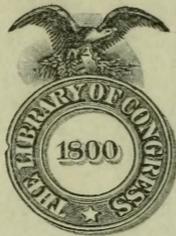


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Wise, J. C.

A Special Report to the
Board of Visitors of the
Military Institute,



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A SPECIAL REPORT

TO

The Board of Visitors of the Virginia
Military Institute

ON

The History of Agricultural Education in Virginia

AND

THE VIRGINIA MILITARY INSTITUTE

AS A

School of Agriculture, Including a Sketch of the Physical Survey
of Virginia by the School of Applied Science

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By Colonel JENNINGS C. WISE

Professor of Law, Economics and Political Science

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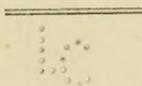
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September 11, 1914

U. S. C. O., 1790-1795

Agriculture is not only one of the most honorable pursuits of man but it is undoubtedly the oldest legitimate one. Cincinnatus, the farmer, was called from the plow to wield the sword in defense of his country and for his military services he has been accorded great honor. But the Holy Writ commands men to refrain from strife among themselves and to return to agriculture. "And He shall judge among the nations and shall rebuke many people! and they shall beat their swords into plowshares and their spears into pruning-hooks; nation shall not lift up sword against nation; neither shall they learn war any more."

While the early Virginians did not entirely forego strife the wars they did wage were principally with the native and the prize they sought was agricultural opportunity, for from the first they saw that the character of Virginia was determined by the nature of the soil, its adaptability to tillage and to the raising of great agricultural staples.

History repeated itself in the settlement of America. So amply rewarded were those who sought out the new continent that her once abundant storehouses were all but completely spoiled before the greedy horde came to see that there was a limit even to the bounty of nature. Indeed, it was not until the close of the eighteenth century that serious alarm was felt for the future. Up to that time there had been very little intelligence shown by the American agriculturist. The system pursued by him seems to have been very generally a three field rotation—two of different grains and the third of pasturage, without any plan of fertilization whatever. Such was the condition in 1800 that an English observer who published about this time a pamphlet containing his observations on agriculture in this country, said: "Land in America affords little of pleasure or profit and appears in

a progress of continually affording less. In New York land which brought twenty bushels to the acre now produces only ten." (Strickland Pamphlet, London 1801, quoted by Lyon G. Tyler in address on Edmund Ruffin, 1913.)

The conditions in Virginia were worse by far than those in New York. The planter of Virginia for near two hundred years had employed slave labor to drain the soil of its wealth and he had all but succeeded. Nothing will so easily lead one to understand the agricultural awakening which ensued as to review the economic conditions which led up to it.

Among the petitions presented to the Virginia Convention of 1829-30, was one from the citizens of Staunton, praying the abolition of slavery and reciting the economic evils brought about by its maintenance.

"We waive", the petition recited, "at present the considerations of religion and humanity, which belong to this momentous subject, and present it as a naked question of policy, wisdom, and safety. We affirm that the possession and management of slaves form a source of endless vexation and misery within the house, and a waste and drain on the farm; that the waste of the products of the land, nay, of the land itself, is bringing poverty upon all its inhabitants; that this poverty and the supineness of our population either prevents the institution of schools through the country or keep them in the most languid and inefficient condition; obviously paralyze all our schemes and efforts for the needful improvement of the country"

"It is conceded on all hands that Virginia is in a state of moral and political retrogression among the States of the Confederacy We humbly suggest our belief, that the slavery which exists, and which, with gigantic strides, is gaining ground among us, is, in truth, the great efficient cause of the multiple evils which we all deplore. We cannot conceive that there is any other cause sufficiently operative to paralyze the energies of a people so magnanimous, to

neutralize the blessings of Providence, included in the gift of a land so happy in its soil, its climate, its minerals and its waters and to annul the manifold advantages of our Republican freedom and geographical position. If Virginia has already fallen from the high state, and if we have assigned the true cause of her fall, it is with utmost anxiety that we look forward to the future, to the fatal termination of the scene.”

The indictment contained in the Staunton petition was not overdrawn. The political speeches and debates of the day show that a realization of Virginia's sad plight was forcing itself upon her citizens throughout the length and breadth of the State. Thomas Marshall, of Fauquier County, Charles J. Faulkner, of Berkeley County, Philip A. Bolling, of Buckingham County, Ex-Governor James McDowell, of Rockbridge County, Dr. Henry Ruffner, President of Washington College, R. R. Howison, the historian, Bishop Meade, the great Virginia divine, Ex-Governor Wise of Accomack, and Jesse Burton Harrison, a political writer of note, forcefully express the convictions entertained by the Staunton petitioners and all testified to the degraded state of Virginia agriculture. (Read interesting extracts from their speeches and writings collected in *Virginia's Attitude Toward Slavery and Secession*; Munford, pp.128-138)

During the first quarter of the nineteenth century very little had been done for agriculture in Virginia. The Virginia Agricultural Society had been formed and some interest had been aroused through its efforts. As early as 1810 John Taylor of Caroline County, a United States Senator and the President of the Society, published a series of articles on agricultural conditions in the State and these articles were in 1818 collected in book form and widely circulated. This work passed through at least six editions and was the first serious treatise on agriculture published in the United States.

Taylor's writings were followed by those of Edmund Ruffin. Ruffin was not only a learned and prolific writer but a most determined campaigner in the interest of agriculture. His first published exposition of his agricultural theories and practices appeared in 1821 in the *American Farmer* and his "Essays on Calcerous Manures," published in 1835, went through many editions, increasing in size and popularity at each edition. Secretary of the United Agricultural Society of Virginia in 1818, Secretary of the State Board of Agriculture in 1840, President of the Virginia State Agricultural Society in 1845, and Agricultural Commissioner of Virginia in 1854, he claims to have been the first to have outlined the course of study for an agricultural college in the United States.

The first authentic record of a plan to establish a school of scientific agriculture in Virginia is that of the action of the Agricultural Society of Albemarle County in 1822. The following correspondence possesses peculiar interest as it contains the earliest proposal of the kind, not only in Virginia, but probably in the United States. (Copied from original manuscript in Virginia State Library.)

To the President of the Agricultural Society of

October 21st, 1822.

Sir:

The enclosed Resolutions of the Agricultural Society of Albemarle, explains the wish of the Society to provide for Agriculture the advantage of a Professorship, to be incorporated in the University of Virginia; the means proposed for making the provision; and the hope entertained of a general cooperation in the scheme.

The present seems to be an important crisis in the Agriculture of Virginia. The portions of her soil first brought into cultivation, have, for the most part, been exhausted of its natural fertility, without being repaired by ameliorating system of husbandry; and much of what remains in forest and can be spared from the demands of fuel and other rural wants, will need improvement, on the first introduction of the plough.

These truths are not sufficiently impressed on the public attention; and have led to the establishing of the Agricultural Societies among us, which are so laudably promoting the work of reform.

As a further means of advancing the great object, it has occurred to the Albemarle Society, that a distinct Professorship in the University of the State, if sanctioned by the proper authority, might be advantageously appropriated to the instruction of such as might attend, in the theory and practice of rural economy, in its several branches.

To the due success of agriculture, as of other arts, theory and practice are both requisite. They always reflect light on each other. If the former, without the test of the latter, be a vain science; the latter without the enlightening precepts of the former, is generally enslaved to ancient modes, however erroneous, or is at best too tardy and partial in adopting salutary changes. In no instance, perhaps, is habit more unyielding, or irrational practice more prevalent, than among those who cultivate the earth. And this is the more to be lamented, as agriculture is still so far below the attainments to which it may fairly aspire.

A professorship of agriculture might derive special advantage from the lights thrown out from the chair of Chemistry in that Institution. This science is every day penetrating some of the hidden laws of nature, and tracing the useful purposes to which they may be made subservient. Agriculture is a field on which it has already begun to shed its rays, and on which it promises to do much towards unveiling the processes of nature to which the principles of agriculture are related. The professional lectures on chemistry, which are to embrace those principles, could not fail to be auxiliary to a professorship having lessons on agriculture for its essential charge.

The fund contemplated for the support of such a professorship, is to consist of a sum drawn from unexpended subscriptions from special donations, and from a diffusive contribution not exceeding a dollar from an individual. It is hoped, that for a purpose of such general utility, the number of contributions will more than make up for the smallness of the respective sums; and that with the other resources, means may be gathered not only adequate to the immediate views entertained; but justifying an enlargement of them.

Should this prove to be the case, it will be an improvement of the plan of agricultural instruction, to provide and place under the superintendance of the Professor, a small farm in the vicinage to be cultivated, partly as a pattern farm illustrating practically a system at one profitable and improving, partly as an experimental farm, not only bringing to the test new modes of culture and management but introducing new plants and animals deemed worthy of experiment. In obtaining these aid might be found in the patriotic attention of the public and private Naval Commanders, in their visits to foreign countries; and it might well happen that occasional success in rearing new species or varieties, of peculiar value, would yield in seeds and stocks a profit defraying the expences incurred on this head.

A farm exhibiting an instructive model, observed as it would be by occasional visitors, and understood as it would be in its principles and plans, by students returning to their dispersed homes, would tend to spread sound information on the subject of agriculture, and to cherish that spirit of imitation and emulation which is the source of improvement in every art and enterprise.

You will oblige, Sir, the Society of Albemarle, by laying this communication before that over which you preside; and by transmitting its sentiments thereon; which will afford particular pleasure, if they should accord with the views of this Society and promise so valuable a cooperation in carrying them into effect.

By order of the Society.

JAMES MADISON, President.

Agricultural Society of Albemarle, October 7th, 1822.

On the motion of Gen. John H. Cocke, the following Preamble and Resolutions, were adopted:

Whereas, the establishment of a Professorship of Agriculture, in one of the principal seminaries of learning in this State, is a measure eminently calculated to hasten and perpetuate the march of agricultural improvement, already so happily commenced; And whereas, there are grounds to believe that such an institution may be incorporated into the University of Virginia, a position at once the most advantageous and convenient to every part of the State; And whereas this Society could not make an appropriation of its funds more conducive to the permanent attainment of the primary objects of its institution—and as it is reasonable to expect that all the Agricultural Societies, the Farmers and Planters generally, will cheerfully contribute to an Establishment of such universal interest—Therefore

Resolved, That one thousand dollars of the sum, now in the hands of the Treasurer of this Society, be appropriated to the establishment of a Fund, the profits of which shall go to the support of a Professorship of Agriculture at the University of Virginia.

Resolved, For the furtherance of this design, that the President be requested to prepare an address to the other Agricultural Societies of this State, requesting their cooperation in this scheme—and further to promote the same object, and increase the said fund, that a committee be appointed to solicit donations not to exceed one dollar from individuals in every part of this Commonwealth.

Resolved, That the aforesaid appropriation, together with all that may accrue under the foregoing Resolutions, be loaned to individuals on good personal security, or to corporate Bodies; and that when the sum loaned to any one individual shall amount to one thousand dollars or upwards, landed security shall be required: That the interest shall be payable semi-annually, and shall be reinvested, until the yearly

profits of the Fund shall be sufficient to afford an income equal at least to a Professorship in the University.

Resolved, That the funds above referred to, together with donations of books, and property of any other description, be with the permission of the Legislature transferred to the Rector and Visitors of the University in their corporal capacity.

(Extracts from the minutes.)

P. MINOR, Secretary.

For some reason which I have been unable to discover, notwithstanding certain correspondence with the authorities of the University of Virginia, the wise plan of the Agricultural Society of Albemarle was not put into effect, and instruction in scientific agriculture was not introduced at the University until 1872 when Dr. John R. Page was elected to the newly created chair of Agriculture and Natural History. We shall see that an effort was made by the authorities to qualify under the Morrill Acts at the close of the war, but nothing came of the attempt except the creation of a chair of Analytical and Agricultural Chemistry in 1868 with the celebrated Dr. John W. Mallet as professor.

Whoever may have first proposed the founding of a school of agriculture in Virginia, the first practical instruction in the subject and aid to the agricultural interests of the state came about, it is believed, in the way now to be described.

The Virginia Military Institute was founded in 1839. In 1841 William H. Richardson succeeded Bernard Peyton as Adjutant General of Virginia and thus became a member of the Board of Visitors of the new educational institution. He was a large landowner, a gifted student of public affairs, and a man of unusual energy and originality. He too appreciated the sad conditions obtaining in Virginia agricultural affairs, and in 1841 organized the Agricultural and Horticultural Society of Virginia, becoming its first president which office he retained for a number of years. This Society seems to have been created to further the work of former associations of the kind which had become more or less inactive.

Already the Virginia Military Institute had been created a normal school to supply the schools of the Commonwealth with efficient teachers. Until this was done Virginia, like the South at large, had been compelled to depend almost exclusively for its teachers upon Europe and the North where the great institutions of learning were concentrated. Southern youth very largely had for a century patronized foreign schools and universities. There were in Virginia a number of colleges with long and honorable records, but at this time they were quite inadequate to meet the needs of the State. The University of Virginia, the creation of Thomas Jefferson, not having yet completed its second decade, had contributed little to satisfy the growing demand for trained teachers, especially in the common schools. A few graduates of the University had attained distinction in the educational work of the State, such as Professors Maupin, Powers, and Coleman, but they, like the better foreign scholars in the State, conducted private classical schools of limited size. For the most part the common schools depended upon educational adventurers, more often than not of decidedly inferior intellectual—as well as personal—qualities. In fact, the calling of the teacher in Virginia was in bad odor, for the drones who had hitherto injected their poor personalities into the educational sphere of the State had placed a stigma upon their profession, and all recognized the deplorable fact.

It was with a desire to correct the educational evils of the State that the legislature launched the Virginia Military Institute upon its noble mission as the first normal school of the Commonwealth by Act of Assembly of March 8, 1842, in which it was provided "that every cadet who shall hereafter be received on State account, shall be required to act in the capacity of a teacher in some one of the schools of the Commonwealth, for the term of two years after finishing his course at the Institute," etc.

At a time, then, when teaching was considered unworthy

of a young Virginian, the Institute began in 1843 to send forth its trained soldiers to battle for the uplifting of youth. First went J. B. Strange, of revered memory, to Norfolk, followed by J. S. Gamble, then by Robert Gatewood. J. H. Pitts was sent to King and Queen County, soon followed by J. C. Council; J. C. Willis going to Northumberland, afterwards to Randolph Macon College as Professor of Mathematics. George S. Patton and W. D. Stuart went to Richmond, soon to be joined by D. Lee Powell, previously assigned to Alexandria. J. L. Bryan and W. M. Nelson were sent to Petersburg, J. J. Phillips to Nansemond, William Mahone to Rappahannock Academy, J. B. Brockenbrough and Ben Ficklin to Abingdon, R. T. W. Duke to Greenbrier, and J. W. Wildman to Fredericksburg. These were but the first few, but from the day they entered upon the new field of activity no gentleman has disdained to teach Virginia youth. The influence of their names and characters assured the success of the legislative act which sent them forth to their labors, and soon they were followed by increasing numbers of graduates of the Virginia Military Institute. These young men had been long and specially trained to teach mathematics and the practical branches. They carried with them to the school districts of the State, among which they were judiciously distributed, the distinctive discipline of mind and body which their military training had impressed upon them, and at once the whole educational system of the State reflected their quickening influence.

For fourteen long years the Virginia Military Institute was the sole normal school of the State, and as evidence of the successful return this military school made to the Commonwealth during the first two decades of its existence one need only refer to the records of its teachers and the Act of Assembly of 1856 by which a normal character was imparted to its older sister, the University of Virginia.

It should also be noted that the number of college students

in Virginia increased from 500 in 1845 to 2,000 in 1856. This was not due to increase of population, but largely to the elevation of the grade of scholarship by the proficient teachers sent out from Lexington. Soon the number of scholars further increased to 2,500, "giving to Virginia the proud preeminence of having a larger number of young men attending college in 1860, in proportion to white population, than any other state of this country."

Richardson observed the success of the Institute as a normal school with marked satisfaction and at once perceived its great opportunity to serve the State in another equally important way. Deeply interested in scientific agriculture, he foresaw the advantage of creating at the Institute a new department to include instruction in chemistry, geology and mineralogy, and to adapt the work of the chair to the agricultural and industrial needs of the State. This idea met with the approval of his confreres on the Board of Visitors, and accordingly the Superintendent, Francis H. Smith, was directed to appear before the General Assembly at the Session of 1845-6 and make known the plan and the wants of the Institute with respect to its execution. The result of Smith's appearance was the increase of the annuity by \$1,000, which sum was provided for the creation of a professorship of Physical Sciences in aid of the agricultural interests of the State.

Happily the choice of the man to fill the important new chair fell upon Lieutenant William Gilham, a distinguished graduate of the United States Military Academy, and he was immediately appointed.

Gilham was from Indiana. He had won distinction in the Mexican War under General Taylor at Palo Alto and Resaca, had served as assistant to the celebrated Professor Bartlett at the United States Military Academy, and was peculiarly well fitted in every way to conduct the proposed work at the Institute. Young and enthusiastic, he entered upon the

development of his department with the utmost zeal. The success of his work induced the Board at the end of four years (1850) to abolish the Chair of Physical Sciences which embraced Experimental Philosophy as well as Chemistry, Geology and Mineralogy, and to create the separate Chairs of Industrial Chemistry and Experimental Philosophy. To the first Gilham was assigned; to the second Lieutenant and Brevet Major Thomas Jonathan Jackson.

In January, 1851, the Superintendent submitted to the Governor and the legislature a special report of Major Gilham which throws so much light upon agricultural conditions in Virginia at the time, and which so clearly establishes Gilham's service to the State, that it is given in full.

"V. M. Institute, January 19, 1851.

"Sir,

"The board of visitors of the institute, at their last annual meeting, having determined that the departments of instruction heretofore in charge of the professor of physical sciences should hereafter be under the charge of two professors, one of natural philosophy, the other of chemistry, mineralogy and geology, and having at their last called meeting in September assigned me to the latter chair, it becomes my duty to express to you my views as to the best manner of organizing and imparting instruction in this important department.

"1st. I propose the same course of general chemistry as is taught at the U. S. Military Academy, adopting the same mode of instruction and illustration practiced and found so successful in that institution. This, by the present arrangements of the studies in the institute, ought to constitute a part of the course of instruction for the second class of cadets.

"2nd. A course of mineralogy and geology. The cabinet of minerals and fossils now in the institute, and which is receiving annual additions, will prove valuable aid in these courses. In mineralogy, my object will be, besides teaching the general principles of the science, to make the class familiar with the most commonly occurring and useful minerals; and in geology particular attention will be given to the geological features of our own state.

"3rd. A course of agricultural chemistry. The necessity for instruction of this kind will become manifest when we consider the fact, that no institution of learning in the state has as yet given such a course of instruction as to give its graduates a thorough scientific knowledge of the principles of agriculture and that the greater portion

of the educated community are either interested or actually engaged in agricultural pursuits. To satisfy myself on the latter point, I have made enquiries for the purpose of ascertaining the occupations of the fathers of the cadets now in the institute, and find that at least four-fifths of them are farmers.

“It is but fair to infer that a large proportion of these young men will in their turn engage in the pursuit of agriculture sooner or later, and that those who do not, will, from early association if from no other cause, feel deeply interested in the agricultural prosperity of the state. Why then should they be required to acquire a course, which, while it fits them for the study of the learned professions, for becoming engineers, draftsmen, etc., teaches them nothing of that profession it should be the object of every good citizen to make the most ‘learned of all?’

“The object of the board of visitors, in arranging the course of instruction in the institute, has always been to give our young men such an education as will be best calculated to make them practically useful. Now I cannot conceive of any one thing better adapted to effect that object than a thorough course, embracing the theory and practice of agriculture always having special reference to the agriculture of our own state, and the means to be adopted for its improvement. Such a course may very readily be taught the first class, and would be based upon and naturally follow chemistry and geology.

“4th. A course of practical and analytical chemistry. Every collegiate institution in the country that sets up any claim to respectability is provided with more or less apparatus to illustrate the most prominent facts and principles of the science of chemistry. In the instruction the classes have the privilege of witnessing the experiments, and more or less is taught about analytical chemistry, with perhaps an analysis or two partly performed in the presence of the class. What I propose is, that after the class has had its course of general chemistry, it shall be divided into sections of convenient size, one section taken into the laboratory at a time, and these required to make use of the apparatus in preparing various substances, re-agents, etc. After the class has acquired some skill in this way, I propose to require each member to go through a systematic course of chemical analysis, both qualitative and quantitative, including the analysis of soils. The schools of chemistry in Germany have a worldwide reputation, and their success may in a great measure be attributed to the fact, that practical chemistry forms an indispensable part of the chemical course. The importance of a practical knowledge of chemistry, and the advantages to be received by such a course of instruction in the institute must be manifest to any one. In our country the necessity for instruction of this kind is beginning to be felt; at least two schools of practical chem-

istry are now in successful operation—one in Yale college, the other in the Lawrence scientific school, Harvard university.

“The laboratory to be provided in the new buildings might be fitted up with special reference to practical instruction with but a very slight addition to its expense. Some additional annual expense will have to be incurred, for the purpose of keeping up the apparatus, replacing chemicals, etc., but this will be too small to require any specific appropriation.

“While on this subject, I would suggest the propriety of the board of visitors applying to the legislature for the passage of a law to make the professor of chemistry in the institute ‘State agricultural chemist.’ A small annual appropriation (say one thousand dollars) will be necessary to cover the travelling expenses of the professor, and to pay the salary of an assistant, who will be required as an instructor in the department of chemistry, and to assist in the analysis of soils, etc.

“In case of favorable action by the legislature, I would suggest the following as some of the duties which ought to devolve upon the agricultural chemist. He should be required to make annual tours through different parts of the state, during the months of July and August when academic duties are suspended in the institute, and at such other times as the duties of the chair of chemistry could be performed by the assistant professor. His object should be, to visit as many farms in every neighborhood he passes through as time will permit, collect specimens of soil for analysis, make himself acquainted with the modes of conducting farming operations, such as manuring, saving manure, rotations adopted, etc., and he should suggest such improvements as would prove beneficial—as subsoiling, draining in certain cases, liming, marling and manuring. He should also endeavor to enlist every farmer on the side of agricultural improvement; and should go prepared to lecture upon agricultural chemistry wherever sufficient interest is felt on the subject to enable him to collect an audience. It should be his constant effort to promote the formation of country agricultural societies, and should endeavor to show the great importance of agricultural journals, libraries, etc. During that portion of the year in which his presence is necessary at the institute, his spare time could be usefully employed in the analysis of the specimens of soils collected on his tour.

“In the last few years great strides have been made in agricultural improvement, but a small proportion of that improvement has reached this state. It is true that, by the example and exertions of individuals, great improvements have been made in certain localities, but they have not extended beyond the sphere of individual influence—there is still something wanting to arouse the mass of our farmers to action. The state is far behind a number of her sister states in this particular, and must remain so until, by effecting the formation of

agricultural societies, by exciting a general interest in agricultural publications, and by sounding the cry of "agricultural progress" on every farm, our farmers can be aroused and induced to contend for the supremacy with those who are now far in their advance. Let any one ride through the finest parts of our state—let him observe the waste of manure, the little care that is taken of the stock or in its selection, the want of shelters for the winter, the little attention that is paid to subsoiling, draining, liming, and marling, which in many places are now regarded as indispensable to good farming, and he will see the propriety, to say the least of it, of some efforts being made to effect a general improvement. This very desirable end is not to be accomplished by appeals through the press, an occasional address, or by general statements, showing what has been done elsewhere; but every farmer must be made to feel that his farm may be improved, that he may do something for the general cause, and that in so doing he will be enriching himself. Make him feel that he is economizing when he subscribes to a good agricultural paper, and that as a member of an active agricultural society, he may be benefitted, and be the means of benefitting others; then we may expect agriculture to receive an impulse that will be felt throughout the state.

"In large commercial, manufacturing or mercantile communities, the spirit of competition is always at work, exciting every one to exertion, either to keep up with or outstrip his neighbor; but in an agricultural community this stimulus is wanting; and while every farmer may be willing to admit that there is great room for improvement, he is not excited to action. He may be compared to a man who, acknowledging the force of an appeal made by some benevolent society to the community, does not feel himself called upon to contribute until application is made to him through one of its agents.

"The state of Maryland has her agricultural chemist, who by going among the farmers, lecturing, analyzing soils, etc., has already awakened such an interest and suggested such improvements that the value of the land is rising all over the state.

"If an objection should be raised to connecting such an appointment with the chair of chemistry in the institute, I answer that the laboratory of the institute will be fitted up with special reference to analytical chemistry, and we have now all the apparatus necessary for the most accurate analysis. The assistant professor would be required to assist in the analytical investigations, and many of the more ordinary analyses would furnish good examples for practice by the class in analytical chemistry. Again—the agricultural chemist, having to instruct a class in agricultural chemistry, would be enabled to impart to his class all that he had learned in relation to the condition of agriculture in the state, its wants, etc., which knowledge so imparted would be diffused throughout the state more readily than in any other way.

“Finally the trial would be attended with but little expense, and if such beneficial results accrued as would justify the appointment of a state chemist, then the professor of chemistry could confine himself to his appropriate duties in the institute.

“Respectfully submitted,

“WILLIAM GILHAM,

“Prof. Chemistry, V. M. I.

“Col. F. H. Smith, Sup't., V. M. I.”

At this time the writer knows of no paper more valuable to the historian of educational development in Virginia than the foregoing report. It evinces on the part of Gilham a grasp of the needs of the State far beyond that of most men of his day. Furthermore it presents the wise and constructive plan which he himself had formulated to subserve these crying needs.

What Gilham proposed was soon made possible of attainment. His suggestions were adopted and for the next decade he prosecuted his work with skill and energy. That work was of the most comprehensive nature, including official soil tests, mineral analyses, agricultural surveys, etc., etc., in all of which the cadets of his department assisted, and so well was it done, that even the ardent Ruffin commended it highly. In the June number of the Southern Planter for 1852, referring to Gilham's printed report on the marls of Virginia he wrote: “The foregoing report of the constituent parts of certain marls of peculiar qualities is a valuable addition to the before existing information on the subject. We believe this is the first, and so far the only, aid of this kind rendered by a scientific investigator to the agricultural laborers in this department of Virginia. And this total withholding of aid from chemical science has not been for want of a long and full notice that such aid was needed.”

The work so highly commended by Mr. Ruffin was soon supplemented by Gilnam who for sometime had been engaged in testing the super-phosphates which were being extensively vended in Virginia as useful fertilizers. Many of

them he publicly branded as spurious and utterly valueless if not detrimental to the soil, thereby cleansing the market and saving to the farmers an untold sum of money.

In 1852 the Committee of the Board of Visitors on Instruction which was constituted by Geo. W. Brent, W. H. Richardson, and W. B. Taliaferro, recommended that the duties of Gilham as State Agricultural Chemist be extended to include a chair of Agricultural Chemistry. It was proposed that this chair should supplant the Chair of Industrial Chemistry at the Institute and that it should be provided for by a special additional appropriation. This recommendation was not, however, acted upon but Gilham, always endeavoring to best subserve the interests of the State through his department, introduced into his course the special subject of Agricultural Chemistry and in 1856 a large chemical laboratory building was erected and fully equipped with apparatus.

At this point it might be interesting to discover the character of the Chemistry Course offered at the Institute at the time under consideration.

The Instruction consisted of tri-weekly recitations in Geology, Mineralogy, and Scientific Agriculture for the First and Second Classes. The text books employed were Dana's Mineralogy, Adams' and Cray's Geology, Norton's Elements of Scientific Agriculture, and Johnston's Turner's Chemistry. Extensive practical work was conducted in the laboratory where samples of soil, fertilizers, lime, minerals, etc., etc., were constantly received from all quarters of the State, analyzed, and returned with full reports containing careful and expert advice. Such was the status of the Institute as a School of Agriculture in the year 1857. While it did not bear the name of a school of scientific agriculture enough facts have been presented to show that in fact it had been one since Gilham first organized his department of Industrial Chemistry, the first in the South in 1846.

The demand of the farmers of Virginia through their Agricultural Societies for scientific methods applied to the Cultivation of the Soil had not only been abreast but ahead of the times. They had been taught that since the time of Sir John Sinclair's first enlightened and patriotic efforts to introduce improved methods, skill and science combined had more than doubled the productiveness of the soil throughout England and Scotland. They had also learned of the great advances made on the Continent of Europe. They knew that in Europe agricultural schools and colleges were deemed necessary and that Professor Hitchcock of Massachusetts found there as early as 1848 more than four hundred such schools and colleges. Indeed it had been Hitchcock's comprehensive report that had given such a fillip to the cause of agriculture in the north where the recently founded agricultural schools also owed their origin in part to the movement against the old classical school and in favor of technical education which began in most civilized countries about 1850. A rapidly growing country with great natural resources, the extravagant waste of which was at last all too apparent, needed men educated in the arts and sciences of life. This want first manifested itself in the United States by a popular agitation on behalf of agricultural schools.

A number of so-called agricultural schools were started between 1850 and 1862 in the states north of Virginia, but without trained teachers and suitable methods they accomplished very little. They were only ordinary schools with farms attached and without the farm feature compared unfavorably with the course inaugurated by Gilham at the Institute in 1846.

The second constitution of the State of Michigan, adopted in 1850, provided for an agricultural school, and this was the first adequately organized and entitled school of agriculture in the United States. The General Assembly of Pennsylvania incorporated the Farmers' High School, now the State

College, in 1854. Maryland incorporated her Agricultural College in 1856 and Massachusetts chartered a school of agriculture in the same year.

Richardson was convinced by the success of Gilham's work that the scope of the Institute should be enlarged to embrace an adequate school of agriculture. This belief was shared by Francis H. Smith, the Superintendent, Philip St. George Cocke, the President of the Board of Visitors, and of course by Gilham. Fortunately for their cause General Cocke was a wealthy and enthusiastic advocate. One of the largest landowners in Virginia and a man of commanding social and political influence, he generously determined to forego the necessary delay to obtain funds from the State and himself provided the means to send Smith to Europe to make a thorough survey of scientific agricultural education.

In June 1858, General Smith, accompanied by three graduates of the Institute, sailed for Europe under instructions from the Board of Visitors to visit the chief military and scientific institutions of Great Britain and the continent, and upon his return to submit a report on "Scientific Education in Europe." During a stay of near seven months abroad, the Superintendent, fully accredited by the Governor of Virginia, found ready access to most of the important institutions of learning and carefully studied their organization and work. Immediately upon his return to Virginia in December he prepared a general report, which was considered to be of such great value that it was printed by the General Assembly of 1859 and widely circulated.

That report, as well as a special one made to the Board of Visitors in June, 1859, contemplated the creation of a School of Agriculture in Virginia, and presented a detailed plan, based on the best of the European systems, for its organization and conduct in the interest of the State. It proposed that the Institute should be reorganized as a General Scientific and Military School with three special schools of

application: 1, Agriculture; 2, Engineering; 3, Fine Arts. The School of Agriculture was to include a department of Chemistry, a department of Scientific Agriculture, embracing the subjects of natural history and scientific and practical agriculture, and a department of Human Physiology, Anatomy and Veterinary Medicine. For its accommodation the erection of a great hall was proposed which should include: 1, an Agricultural Museum in which specimens of seeds, plants, wood, roots, fruits, and other agricultural productions would be collected; 2, a Forestry Museum in which specimens of every variety of forest timber might be displayed, and, 3, a Museum of Agricultural Implements. It was also proposed that a farm for experimental and practical agricultural work in connection with the school be purchased. "With these additional means of instruction in the special School of Agriculture," wrote General Smith, "the institution would afford facilities to the agriculturists equaled by few institutions of the kind in this or any other country."

The Board of Visitors immediately adopted the recommendation contained in the Superintendent's report, and private donations of \$20,000 and \$10,000 were at once made by General Philip St. George Cocke, President of the Board, and Dr. W. Newton Mercer, of Louisiana, respectively, for the endowment of the School of Agriculture, while Mrs. E. L. Claytor, of Lynchburg, gave \$5,000 towards the erection of a Hall of Natural History to be named after her deceased son who was a graduate engineer of the Institute. An additional sum of \$10,000 was later tendered by Dr. Mercer on condition that a like amount should be raised in Virginia within one year.

The Board of Visitors not only accepted General Smith's suggestions, but actually, with the funds so generously provided by General Cocke and Dr. Mercer, established a School of Agriculture with two professors. By act of March 28,

1860, the General Assembly increased the annuity to the Institute from \$9,210 to \$15,000, and \$20,000 was specially appropriated for building purposes.

Established by legislative act in 1860, the new special school of agriculture was at once put into operation for the two upper classes at the Institute. The following synopsis of the course of instruction offered in the catalogs of 1860 and 1861 is interesting.

FIRST YEAR JUNIOR CLASS	Natural Philosophy	History Veg. Physiology Veg. Toxicology Zoology Agricultural Botany	Chemistry Mineralogy Geology
SECOND YEAR SENIOR CLASS	Civ. Eng. applied to F. Bridges, roads, drainage irrigation etc. Field Fortification Rural Architecture Mech. Drawing	An. & Phy. of Sub King! Veterinary Practice Ani. Toxicology Hum. Physiology Hygiene Dietetics Gen. Botany	His. of Agriculture Gen. Prin. of Agriculture Chem. & Geol. of Agriculture Domestic Economics of Agriculture Practical Agriculture Meteorology Const. Law Moral Philosophy Pol. Economy

Meantime, however, the John Brown raid had occurred, and the legislative mind had been diverted from educational matters; further necessary appropriations for the contemplated buildings and equipment were not forthcoming. Soon war supervened and interrupted the final consummation of the constructive plans which the Institute had formulated. Gilham himself was called to Richmond as Commandant of Camp Lee where 30,000 Southern volunteers were mobilized, and the work which he had undertaken with such high promise of success was indefinitely postponed.

The agitation in the north for agricultural schools had, however, made itself felt in congress to such an extent as to lead to the establishment of the so-called "land grants" for agricultural colleges. The establishment of these colleges was due chiefly to the wisdom and foresight of Justin S. Morrill, who introduced the first bill for their endowment in

the House of Representatives on the 14th of December, 1857, and saw the latest one approved by the president on the 30th of August, 1890. Morrill is, therefore, generally accorded the title of father of American Agricultural Colleges.

The Federal enactment or Morrill law affecting Virginia was that of July 2nd, 1862.

At the regular session, 1863-4, of the Unionist Legislature of Virginia, or the loyal legislature, as it was called, which was held at Alexandria, the following act was passed February 5th, 1864. (See Session Acts 1863-4, Chapter XXI.)

“An act accepting the donation to the State of Virginia of public lands in aid of education.

“Whereas, it is provided by an act of Congress approved July 2nd, 1862, that certain donations of public lands (to be appropriated to the endowment, support, and maintenance of colleges for the benefit of agriculture and the mechanic arts) shall be made to such states and territories as shall signify their acceptance of their proportions respectively of said donations, and of the conditions and provisions of said act: therefore,

“Be it enacted by the General Assembly of Virginia, That the donation of public lands proffered to the Commonwealth of Virginia by the act of Congress July 3rd, 1862, with the conditions and provisions therein prescribed, be and the same is hereby accepted.”

July 23rd, 1866, the act of 1862 as amended was approved by the President and five years was given any state which had accepted the act of 1862 to establish an agricultural college, that being one of the terms of the grant under which Virginia was entitled to the proceeds of the sale of 300,000 acres of the public land.

The Morrill acts provided that “military tactics” should be included in the curriculum of the agricultural colleges, the founding of which they sought to encourage. Inasmuch as the Virginia Military Institute was essentially military in character in addition to the fact that already a school of agriculture had been established there by means of State and private aid, the opportunity afforded the State to claim the benefits of the Morrill acts was apparent to everyone.

May 9th, 1865, President Johnson issued the executive orders transferring the government of Virginia from Alexandria to Richmond with Francis H. Pierpont as Governor. The Institute was reopened the following October and at once the Board of Visitors petitioned the legislature for an act incorporating it as the State Agricultural College. Governor Pierpont specially recommended that this action be taken but the petition was not granted. Nevertheless the restored legislature in the Session of 1865-66 formally accepted the Morrill Acts. (See Acts 1865-6, C. 130, p. 225.) In the meantime, however, many other colleges in Virginia petitioned the legislature to be made the beneficiary under the Morrill Acts. The University of Virginia, Hampden Sidney College, Washington College, and Roanoke College were all pressing their claims with varying degrees of earnestness.

Shortly after the war a professorship of Agriculture had been established at the University of Virginia based upon the Miller fund of \$100,000. A large building had been erected and thoroughly equipped for the purpose of Applied Chemistry; the department of Natural Philosophy had been greatly extended and improved, a portion of the University grounds had been set apart for experiments and illustrations in connection with the agricultural department, and efforts were on foot to develop a high grade school of agriculture. But it was well understood in the legislature that the University did not favor the plan of establishing a school of the manual or highly practical order. Indeed the supporters of the University were much divided in the whole matter and as a result their influence was not brought to bear in the most effective way.

Political affairs in Virginia in 1866 and 1867 were in a most disturbed condition. From the 3rd of April, 1865, to the expiration of his term of office Pierpont was subject to the orders of Federal military commanders. March 2nd, 1867, Virginia was created Military District No. 1 under a Con

gressional Act providing for the more efficient government of the Southern States. March 23rd, 1867, another act was passed providing for a constitutional convention in Virginia. Delegates having been elected in accordance with the terms of the Act, the convention assembled in Richmond in December following. Pierpont's term of office expired in April and on the 6th of that month General Schofield, the district commander, appointed H. H. Wells, Governor of Virginia.

For over three years the "Reconstructor Convention" labored over the work of framing a new constitution for Virginia.

The new constitution provided for agricultural schools, (Chapter VIII, Sec. 5) a bureau of agricultural chemistry and geology, and a bureau of agriculture and immigration. July 6th, 1869, an election was held for the ratification of the constitution and at the same time for the election of a governor to succeed Wells. The constitution was accepted by an overwhelming majority, and Gilbert C. Walker was elected Governor, and inaugurated September 21, 1869.

In October the General Assembly met and ratified the 14th and 15th Amendments. Having thus complied with the terms of the Federal Reconstruction Acts Virginia was readmitted to the Union by Act of Congress January 26th, 1870.

The Government having been reestablished and a legislature elected, it was now again sought to have the Institute Incorporated as the State Agricultural School under the constitution and the Morrill Acts. Governor Walker was said to favor the plan and it seemed as if it would succeed. But politics ran strongly against the Institute which commanded little influence in the Reconstruction Legislature. That legislature has been styled the "Black and Tan" legislature because of the mixed character of its members. There were Negroes, alien carpet baggers, and others little in sympathy with the traditions of Virginia. The service which the Institute had rendered the Confederacy did not appeal to such

an element with particular force. The great majority of Institute supporters were dyed in the wool "rebels." They had as a body fought and bled for principles entirely at variance with those espoused by the faction now in control of the State and which they regarded with contempt. Furthermore there was a strong desire manifested in the western part of the State, a section now politically predominant, to erect in that quarter an agricultural college. On the other hand the Negroes, among whom there were 120,103 registered voters as opposed to 149,781 whites, were clamorous to share the spoils under the Morrill Acts. Nevertheless, it was tentatively agreed upon in committee to divide the proceeds of the "land grant" equally between the Institute, the University of Virginia, and Hampden Sidney College, and Governor Walker committed himself to the plan. Partial success at least seemed to have been at last attained by the Institute.

The faction of the legislature in control of the situation was insistent upon creating something new. It desired to create an agricultural and mechanical college it declared, not of the didactic or of the progressive type which it feared would result from the adaptation of any one of the existing institutions, but of the practical type. "The spirit and tendency of the institution should be, not to educate its students away from their vocations, but in and for them—not to send them home with distaste for manual labor, and a craving for some more literary or less toilsome pursuit, but to send them back with fresh zest for their work, and a higher sense of its dignity and its capabilities, and with their own powers so strengthened that they may command a degree of success which they could otherwise never have attained." (Virginia School Report, 1872, p. 19 A. See also full report on proposed Agricultural and Mechanical College.)

The expression of such ideas as these sounded well and appealed to popular support in a State suffering from the awful blight of war, a State in which there had been an enforced

beating of swords into plowshares and spears into pruning-hooks! It was a direct and skillful appeal to the lower classes who were at the time in absolute control of the State legislature. Said the report of the committee appointed to consider the nature of the proposed new college, "The rich and influential classes are first and most liberally provided for, whilst the toiling masses are comparatively neglected." (Ibid.)

While earnestly seeking the means with which to extend its usefulness to the State by securing to itself the proceeds of the sale of Virginia's public lands, the Institute was not otherwise idle. Financially embarrassed, in fact impoverished in the eyes of many beyond redemption by the burden of a vast debt which it had accumulated during the war in the interest of the State and the Southern Confederacy, instead of pressing her rightful claims the Institute only sought how best to serve Virginia.

Virginia was prostrate. Her affairs were in a more desperate state than at the termination of hostilities. In fact she was materially poorer ten years after the war than at its close, due to the degrading policy of reconstruction which was pursued by the Federal Government. The task of restoring her waste places was a vast one and in that work the Institute saw a great opportunity. Accordingly the authorities suggested to the legislature the plan of recalling Matthew Fontaine Maury, the Pathfinder of the Seas, from Mexico, where he had been in the service of the ill-fated Emperor Maximilian, to occupy the important chair of Physics at the Institute and to make a physical survey of the state. This survey, it was proposed, should include the preparation of a physical history of Virginia and a complete geographical and geological map.

Such a work would embrace the entire physical geography of the state; its minerals and ores; its earths and soils; its forests and plants; its animals, fisheries and oyster beds;

its water power and agricultural products; its climate and meteorological phenomena; and in its prosecution, it would afford the broadest practical field of research to the students in each of the special schools at the Institute. Such a work was urgently demanded and Maury was preeminently the man to conduct it aided by General G. W. C. Lee, Captain John Mercer Brooke of naval fame, and Colonel Marshall McDonald, whom the board had secured as professors and heads of the departments of Applied Mechanics of Engineering; Practical Geography, Meteorology and Geodesy; and Mineralogy and Geology, respectively. General Lee had been for many years associated with his illustrious father in the United States Engineer Corps; Captain Brooke, after having been for a long time on duty at the national observatory at Washington, in association with Maury, had conducted an important exploration of the North Pacific; and Colonel McDonald had been associated with Professor Henry of the Smithsonian Institute.

The committee of the legislature before whom it was laid favored the plan as proposed and outlined by General Smith, but the legislature was not prepared to provide the means for its execution. Despairing of state support the Institute, however, decided to carry it on to completion with its own slender resources and July 2, 1868, created for Maury the Chair of Physics and recalled him to Virginia. Fortunately for the state the man now regarded by many as America's foremost scientist, responded to the call and at once set about the physical survey of Virginia in the employ of the Virginia Military Institute.

Part I of the Physical Survey of Virginia was the result of the first two years of his work. Part II occupied the remaining two years of his life. Twenty thousand copies of Maury's world famous and epoch making report, with accompanying maps, were printed and distributed at the expense of the Institute. This report was read and approved

everywhere and was an important element in the extension of the Chesapeake & Ohio Railroad to the Ohio River, and in directing the attention of the world of commerce to the Virginia through routes as the true lines of trade from the Mississippi basin to the Atlantic Seaboard. Furthermore, it was the basis upon which the national congress undertook the study of transcontinental transit.

Upon the prosecution of Maury's vast and important work the Virginia Military Institute expended sums aggregating \$20,000, not one cent of which was ever refunded to it. In such legitimate college "extension" work it may be said to have only performed its functional duty as a school of applied science. Certain it is the Institute received no consideration from the legislature for the voluntary service it rendered the state.

In June 1867 the State had purchased a farm known as "Little Scotland" lying on Hampton Creek. Suitable buildings were erected the following winter and students admitted in April, 1868. This institution was known as the Hampton Normal and Agricultural School for colored pupils. In the town of Blacksburg, Montgomery County, there was a small private school owning certain real estate, known as the Preston and Olin Institute. The authorities of these two institutions were active in enlisting the support of the legislature and in calling attention to the advantages of utilizing their property in connection with the proposed foundation of agricultural schools.

In the very midst of the Institute's great work on the physical survey of Virginia, the legislature of 1869-70, elected under the new constitution, finally passed an act incorporating the Hampton Normal and Agricultural School, and the Virginia Agricultural and Mechanical College. The first was to provide instruction for colored and the second for white pupils. This action seems to have been the result of a shrewd deal between the blacks and the Western faction

in the legislature by which the spoils were to be divided between them while the supporters of the various colleges pressing their claims contended among themselves.

During the Session of 1871-2 the legislature authorized the sale of the Congressional land scrip allotted Virginia and provided for the investment of the proceeds thereof. (Acts 1871-2, C. 69, p. 48.) At the same session the income arising from this investment was appropriated—one-third thereof to the Hampton Normal and Agricultural School, and two-thirds was set apart to the use of the Virginia Agricultural and Mechanical College which was to be located at Blacksburg, in Montgomery County, provided the real estate belonging to Preston and Olin Institute should be transferred without cost to the visitors of the new college, and provided the County of Montgomery should vote a sum of \$20,000 as an addition to the funds of the college. (Acts 1871-2, C. 234, p. 312. Approved March 19, 1872.)

The Act creating the new college required a Board of Visitors consisting of nine members to be appointed by the Governor, which board was to include the President of the Virginia Agricultural Society and the members of the Board of Education, having been duly appointed the Board met in March, 1872. A Committee composed of Messrs. W. H. Ruffner, J. R. Anderson, and W. T. Sutherlin, was appointed to report a plan of organization and instruction for the new college, at the next meeting of the Board.

In July the Board again met and received the report of the Committee which was adopted. One interested in the history of education in Virginia should read this report, for it precludes the possibility of dispute as to the original intent of the founders of the Virginia Agricultural & Mechanical College. (Virginia School Report, 1872, p. 5 A.)

Virginia realized a larger sum per acre on the sale of her public lands than any other state—about ninety-three cents. The proceeds of the sales of the Congressional land-grant

was, therefore, about \$280,000. The interest on the investment of this sum enabled the two agricultural schools to commence operations at once.

The new college at Blacksburg was opened October 1, 1872. When the legislature created it all idea of continuing their efforts on behalf of the School of Agriculture at the Virginia Military Institute was abandoned by the authorities; the state was not only unable to provide adequate support for its further development, but it was seen that such support even if possible could hardly be expected. Thenceforth the energies of the Institute were to be bent upon the development of its schools of Engineering and Chemistry, leading in later years to the addition of a school of electricity. All of these schools are, of course, more or less didactic. The Chair of Chemistry adapted to scientific agriculture, however, was continued.

A fact which is not generally known should be given here. In August, 1880, Scott Shipp, graduate of the Virginia Military Institute of the Class of 1859 and who had been Commandant of Cadets at that institution since 1862 was elected President of the new Virginia Agricultural & Mechanical College. After holding office four days he resigned. Shipp returned to the Institute, remained Commandant until 1890, and was then appointed Superintendent from which office he resigned in 1906 after fifty years of faithful and efficient service as a cadet and an officer of the Institute. (Shipp was graduated from the V. M. I. in the class of 1859. He was 32 years of age in 1872.)

October 16, 1888, the Virginia Agricultural Experiment Station was organized in accordance with Congressional Act and became a part of the Virginia Agricultural & Mechanical College at Blacksburg. Within recent years the college has changed its name and is now known as the Virginia Polytechnic Institute. This change was due to a gradual transformation, in the original character of the institution from that

of a practical school of agriculture and mechanic arts as designed by its founders, to a didactic school of scientific agriculture, engineering and mechanics, but strong pressure has of late developed in favor of the original conception in order to avoid the duplication of the engineering schools at the Virginia Military Institute and the University of Virginia. Under the administration and guidance of its recently elected president, John D. Eggleston, the Polytechnic Institute bids fair to enter a field of greater usefulness to the State than it has hitherto occupied.

Under section 1225, Revised Statutes, and amendments thereto, officers of the Regular Army are detailed as military instructors to certain schools, colleges, etc., that fulfill certain specified requirements as to number of students attending and amount of instruction given in military subjects.

Under the Morrill Act of July 2, 1862, land and money were donated as we have seen :

“To the endowment, support, and maintenance of at least one college (in each State) where the leading subject shall be without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts,” etc.

Under the present law there is no specified standard of military instruction required and no penalty attached to insufficient or improper military instruction that endangers the receipt of the annual fund appropriated, unless the following provision of the act of August 30, 1890, could be construed as such, viz:

“If the Secretary of the Interior shall withhold a certificate from any State or Territory (as to whether such State or Territory is entitled to receive its share of the appropriations for colleges) of its appropriation, the facts and reasons therefor shall be reported to the President, and the amount involved shall be kept separate in the Treasury until the close of the next Congress in order that the State or Territory may, if it should so desire, appeal to Congress from the determination of the Secretary of the Interior.

“If the next Congress shall not direct such sum to be paid, it shall be covered into the Treasury.

“And the Secretary of the Interior is hereby charged with the proper administration of this law.”

The Secretary of the Interior has not under him the necessary trained military personnel to determine, so far as the proper military instruction is concerned, whether or not the intent of the provisions of the Morrill Act regarding “military tactics” is properly enforced, and does not attempt to do so.

The War Department does inspect the several colleges to which Army officers are detailed, but has no remedy for the enforcement of the proper amount of military study other than the withdrawal of said officer in certain cases, the result being that in some colleges the minimum amount possible is set aside for the maintenance of the military department.

Efforts are now being made to remedy the above situation, and it is hoped the results will be satisfactory.

The Virginia Agricultural and Mechanical College, now the Virginia Polytechnic Institute, has never been organized as an essentially military institution though the military feature has, perhaps, been stressed more than at many of the “land-grant” colleges. A semi-military organization is retained more as a means of qualifying under the terms of the Morrill Act than because of any convictions as to the efficiency of military training. The military Esprit of the institution has never been developed to such degree as to make the required course of military training popular among the students. Nor was it contemplated by its founders that it should be. This belief is established by reference to the report of the plan of organization adopted for the college. In that report we read:

“The military feature offers another embarrassing problem. There is great power in the military system, but as General Lee once remarked,—‘To be effective, it must be perfect;’ that is, not only complete in organization, but backed by military authority and penalties.

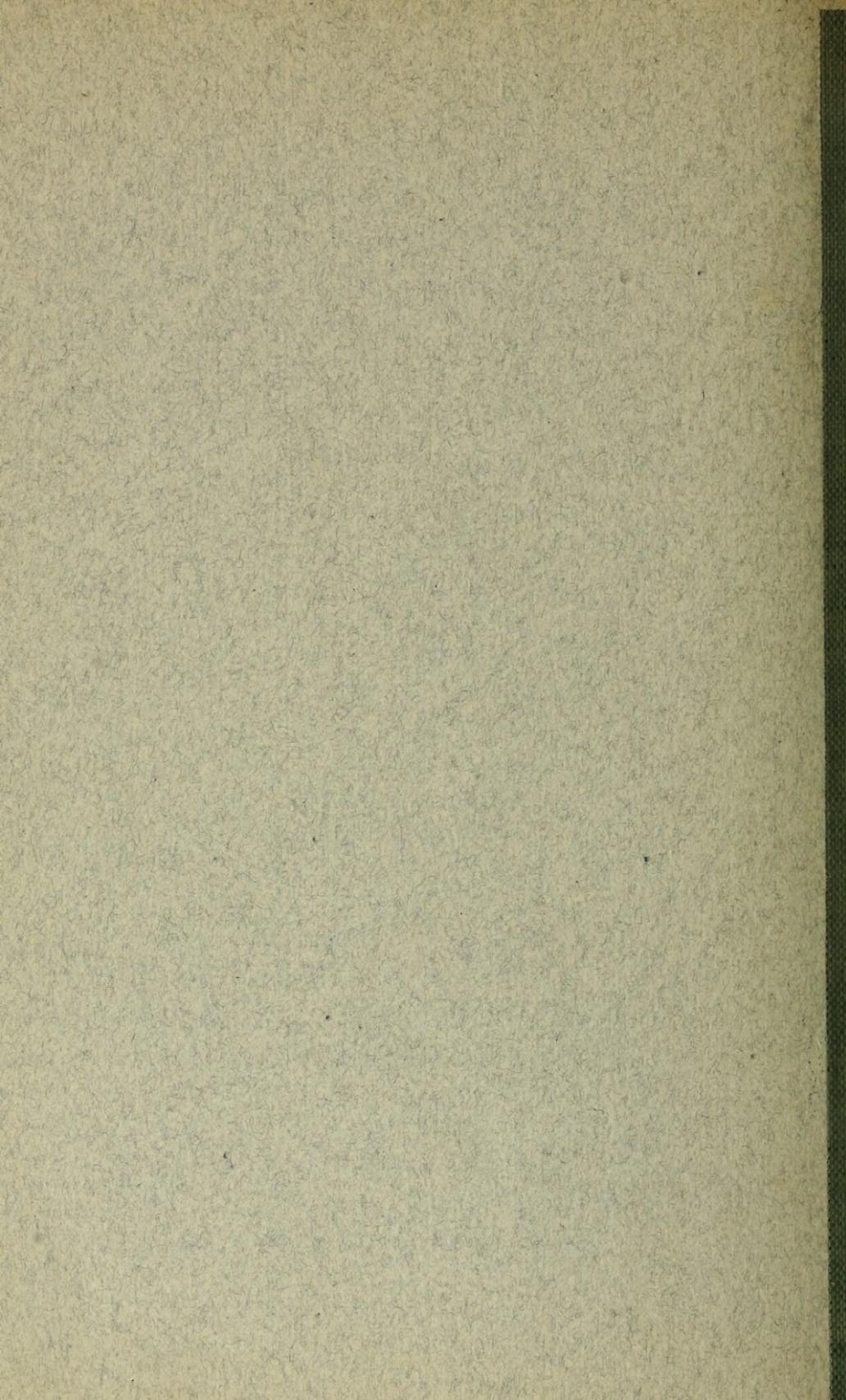
“The Act of Congress having been passed during the war, the clause

requiring military tactics to be taught may have been prompted by some intention to establish the Prussian military system over the whole land. But if such an idea ever existed it has passed away, and there now seems no disposition on the part of Congress to be enacting with regard to the military feature in these technical schools. In point of fact, the colleges which received the land grant have, with a few exceptions, given no prominence to this feature, and would be glad to omit it altogether.

“Still, whilst the law exists, military tactics must be taught in some form. We do not understand that the term “military tactics” covers the whole ground of military science and tactics, but has special reference to field evolutions. Therefore an opportunity given to the students for military drill would satisfy the law. Some of the disciplinary regulations might be usefully adopted, if it should be concluded to board all the students on the college grounds.” (See School Report, 1872, p. 33.)

On the other hand, the Virginia Military Institute is essentially military in character. The military Esprit of the Corps of Cadets has been carefully fostered from the day the institution was founded with the result that its traditions are highly military in character. Under the provisions of Section 1225, Revised Statutes, and the amendments thereto, the Institute has always been rated as of the highest class of military instructions and in 1914 it was unequivocally declared by the Chief of Staff of the United States Army before a Committee of the Senate to be the most valuable and efficient military school in the United States, the national academies excepted. In the report of the Army Inspector for that year it was stated that all requirements of the War Department were not only fulfilled but surpassed, and it was recommended that the members of the two upper classes might well be commissioned as officers in the volunteers should need for such troops arise.

In view of the foregoing facts it seems anomalous indeed that the Federal government should have contributed so liberally to the support of the Virginia Polytechnic Institute and extend no pecuniary aid whatever to the Virginia Military Institute.



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