ANNUAL ADDRESS. plivered before the N. Carolina State Ag visultural Society, at the Fair Grounds near Haleigh, on Friday, the 17th Oc. tober, 1856, by Phor. E. MITCHELL. of the University.

Three weeks ago last Tuesday, I was onored with a communication from the Committee of the Agricultural Society of North Carolina, in relation to the duty 1 now discharge. A gentleman had been respects qualified, -one who would have fered for your acceptance the connsels f a wisdom, in which the operations of s mind richly endowed by nature, would appear, combined with the fruits and reis of earnest study, mature reflection, and a very sufficient experience. But, it aving been ascertained that this excelent gentleman would be called away and letamed elsewhere by circumstances, at is time beyond his control, it became cessary to find a person who, on the ar of the moment, would provide someing that would pass muster at this anversary-The Committee did me the our of taking it for granted that if I an address suited to the importance of the subject and the dignity of the occasion, I ample time for the task assigned, if one ad nothing else to do. But we are over moning with students at the University, and have abundant occupation in the disharge of our duties there, not only every lay but all day, which, of course, alters materially the condition of things. So much of apology seems to me appropriate in the way of deprecating too severe and scarching a criticism, in case that in rethe matter of the execution of gard to ed to have made some approach only to

a decent respectability. But a more weighty objection to the peaker, in the capacity in which he now cars, may be found in his manner of and what constitutes his employment to one year's end to another. He is narried one, by the way,) who is kept cructually cloistered up there at the versity, engaged in communicating to he young men the indiments of science. What can be know about the operations of farming, the cultivation of the ground

or the raising of cattle f What is hare, as we may suppose, of and as an objection to me, constitutes, any judgment, my very highest recomrendation. It were a good thing for peoof all occupations, professions, and " I trous in society, of each sex and ev ort age, to have now and then from some adventic source, a statement of the otim on entertained respecting themselves and their modes of proceeding, by such as are the farthest possible removed from tem in their social position and per-uits would be very amusing at least, and ight be useful sometimes, for lawyers, reachers, shoemakers, farmers, doctors, robauts, and others to listen to the is their neighbors have about them.

If somebody would only come over to side of the house, and disclose the immunications the sex have with each ther about the men, when their heads are brought into closest proximity, and the sweet, low tones of their voices only are heard. but the words they atter are undistinguishable; or if the women could our the frank and undisguised opinions of the men about themselves, when these same men speak out fearlessly to one

another, instead of humbly talking blarat the feet of a wife or a lady portant crop, is sown. As the atm might result in a mutual benefit. One of the happiest in conception, as mety, one a polished gentleman, and as interchanging opinions about the characters and conduct of mankind, when



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understand so much better than I can pre- at moderate intervals, throughout the beyond the mere eradication of the weeds the slow decay of animal and vegetable merely some fine particles of common such conclusions as part and parcel of his ballef that the above tend to do. In navigating a vessel across the ocean, that are appropriate to these famous coun-it, in fact, always loss and mellow, so ed by the leaves of the plants, decompos-tion of their own, and one that is different what we commonly call the action of their own, and one that is different what we commonly call the action of their own and one that is different what we commonly call the action of their own and one that is different what we commonly call the action of their own and one that is different what we commonly call the action of their own and one that is different what we commonly call the action of the control o there are several particulars to be attend-tries, may be expected to approach more that the roots of the growing plants may ed to. Not only are the sails to be trim-med and set in such a manner as to catton the trime in the the time and set in such a manner as to catton the the time and set in such a manner as to catton the time and set in such a manner as to catton the time and set in such a manner as to catton the time and set in such a manner as to catton the time and set in such a manner as to catton the time and set in such a manner as to catton the time and set in such a manner as to catton the time and set in such a manner as to catton the time and set in such a manner as to catton the time and set in such a manner as to catton the time and set in such a manner as to catton the time and set in such a manner as to catton the time and set in such a manner as to catton the time at the time and set in such a manner as to catton the time at the tim uncd and set in such a manner as to catch selves. It is possible; therefore, that by ishment they require. He made small ac-the breeze, the helm to be managed with the study of the ancient classics, some of count of manure, almost the only use of which is one of its constituents, given economy of every plant? These were which is fact facto press upon the facto pr ill, the course by the compass to be not which incidentally mon the topic which he represented to be to devide the out. The leaves with which the forests the questions, to be settled, and the an d and the log to be thrown at intervals of agriculture, and a few, as Virgil, Cato, terrestrial matter, which affords nutrias to ascertain the progress the good Varra, and Columelia, treat professedly ment to the mouths of the vegetable root- or purpose so far as has been hitherto as. ship is making, but from the record of of it, we may be able to learn something lets, which end can be accomplished, he certained, than the accomplishment of agriculturist. With the truths they state, their dimensional and control and the record of the record of a state of a servations so obtained, the position of in regard to the best methods of manage said, more completely and in a way in all these changes. The grove around the his mind should be very thoroughly imthe mariner on any particular day and at ing our farms here in North Carolina. In respects preferable, by tillage. Tall beanglet, at any rate, make believe to do, so, well as some other people. Three are a few chemical confirmatory to him. There are a few chemical confirmatory to him. as well as some other people. Three may be known whether he is drawing the there are always found in them very ld-gins by showing that the roots of plants large scale, illustrative and continuatory to finit. There dre are ween number of the feiling of the feili a dangerous coast. I propose to examine plantation.

agricultural improvement and knowledge; especially that part of our knowledge with growth of vegetables, which are verize the soil by repeated ploughings. Yet the quantity for the vegetable in question. These inwhich is most intimately connected with likely to force themselves upon the attent before it is seeded, but as it becomes of carbon in the tranks and limbs of the dispensable requisites of fertility are few induce as many persons as I can who the science of chemistry. To do this it tion of the most casual observer, and gradully more and more compressed and trees is evidently increased from year to in number; they are required by nearly will be necessary to look pretty far back, which were not neglected in the agricul-hardened afterwards, recourse must be year. An additional, and it is by no all, if not by all absolutely of the plants as well as immediately abont us. If any ture of this or any other ancient peo- bad to tillage, or horse-hoeing, as he call- means an inconsiderable quantity of car- we cultivate, though not by all in the art or science is warranted in tracing its ple. art or science is warranted in tracing its ple. its whilst the plants are shooting up, to be stated, are booting up, the state of the

les of culture in that country. It soldom rains in Egypt, which, so far at all,

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as the growth of vegetables is concerned. 2. When a pile of logs or a brash-heap which are so much nearer together, it be- vealing to us much in the economy of the small quantity and proportion through all s dependent altogether upon the waters is burnt in a field, the growth upon that comes indispenable that those rows be vegetable and animal world which it was soils, whilst there are few if any exten downwards, giving off its branches, and of the Nile. The habitable and cultiva - jot will show that some influence has perfectly straight and true, their distances most desirable to know, and farnishing sive and rich mines of themefrom which the small rootlets penetrate sometimes to table part of that country, if not confined absolutely to the low grounds of that crated from the wood and deposited there, the whole business be conducted with the tream, extends but a very short distance which is favorable to the increase of veg- utmost care and precision. Tull contribevond them. Once in a year, some stables of every kind, whether wild or uted indirectly, therefore, to the neatness good deal more prized by the vegetable and natural. Wherever there is one of few other things, which they collect and where between the middle and end of cultivated. This will naturally lead to and beauty of the agriculture of Great ie, the river begins to swell your the ffect of rains which have fallen, we do of course with good results. not know how long hefore, in the interior 3. From the visible effects of the sum-of the continent of Africa. The quantity mer shower, we are naturally led by con-tention there, thrives wonderfully under vate and raise, are composed of the ele-phate of lime in the soil. The quantity upon the ground, the precious elements ty of the water flowing in it goes on in jecture that by supplying water in any this kind of management, and if intro- ments of water, which they can easily treasing very slowly for about two other way, we may accomplish the same dated into the smaller patches that are produce, which we can supply if they may be very inconsiderable, so small that the same dated into the smaller patches that are produce, which we can supply if they may be very inconsiderable, so small that the sub-soil, and from that which lies at a months, at the end of which time the ends. This will be true, especially if we seen at this season of the year somewhere are so in want that there is an absolute the analytical chemist when has a parcel considerable depth, have been brought. channel of the Nile is brinful and it be can direct a running stream from its about every plantation in North Carolina, necessity for it; and if carbon, which they of that soil under examination, will with up and incorporated with the vegetable gues to come over the banks and cover course, and lead it along our cultivated would have an excellent effect. With the got from the air; all they can possibly difficulty, if at all, be able to separate tissue, are liberated and mingled with gives to come over the banks and cover course, and lead it along our cultivated would have an excellent effect. With the got from the air; all they can possibly underly in a can, de able to separate tissue, are liberated and mingled with the low grounds. A month later it is at helds. The great principles of agricul same expenditure of manner a crop of want is a soil of almost any sort in which have an in the top soil. They are likely to be dis-tissue, are liberated and mingled with the top soil. They are likely to be dis-equal goodness would be produced over to obtain a foothold and raise themselves while from a stalk of wheat we obtain a foothold and raise themselves while from a stalk of wheat we obtain a foothold and raise themselves while from a stalk of wheat we obtain a stalk of wheat we obtain a stalk of the processes that were adopted and carrat the end of October or beginning of No the processes that were adopted and car-rember has returned to its channel again, ried into practice by the ancients, were have a better supply of an article on the sun's rays. Why then should there is certainly no superfluity of phosphoric lost, some is soaked up and sinks to a eaving the soil, after having been flood. few in number. ed for two whole months, most thorough-

ever elements of fertility the river has other inchanical agency, before the seed least, if not utterly useless, brought from the regions of its remote is committed to it; and it is desirable that fountain head. The ground now receives this storring of the ground be renewed ment, discarding the whimsies of Tull, about the matter as another. There was cover, fourtain head. The ground now receives this storing of the ground be renewed ment, discarding the whimsies of Tull, about the matter as another. There was cover, what hitle breaking up it requires, and subsequently, whilst the crop is grow availed themselves of his reasonable sug- a mass of facts to which was given by The fact that these few substances are ont with the distinctness in which, from

Istiliete

to the nature of their food. After examinary form. The leaves, when they fail, healthy and vigorous growth of each tural operations which are faithfully atand ascertain, as accurately as I can, whereabouts we are in the great occan of arricultural improvement and known that if they are present in suita-us of their modes of culture are few and this food to be fine particles of earth. It is in the methods they employ: that if the nature of their modes of culture are few and this food to be fine particles of earth. It

what I have now to offer, I shall be judg-race, I suppose this to be eminently true just about the spot where some manure deprive them of the nonrishment that is either swept off by the wind or burnt, \_\_\_\_\_\_ common which communicates to it the riginal Indian was its only inhabitant of farming, inasmuch as we have it from has failen, may be expected to suggest to in readiness for them. His system of till. There is no other source from which all property of forming a soap when boiled was covered all over, as it had been for the very best of all authorities, that the most slovenly and careless farmer the age was very much the same that has this carbon can by any possibility have for some time with an oil or with tallow; ages, with a continuous forest. Not exfirst father of the human race was put in- application of the same substance to the long been practised in this country in the been derived but the atmosphere. to the garden of Eden, to dress it and to roots of wheat or any other vegetable he culture of corn, and at a later date of cot. The effect of animal life, therefore, is perties to potashes; lime magnesia, silica those parts of the county of Wake, for keep it. Of the agriculture of this gar, way have under cultivation, as a pretty don't do not propose to treat at present, certain means of rendering the returns gether as too filthy a substance to be emhow it is remarkable with regard to how it is remarkable. Hebrews, used for food; and he would apply the to charge it with nourishing food for ve thy of attrention in the condition and down to us, and who wrote expressly a stalk of corn or cotton, as in the case of ed to meet the wants of the animal.

the application of asiles as a manure, and Britain, and the perfection of the methods now in use there. The turnip crop,

restions. They continued to collect, pr

year. The modes of culture, therefore, is to open the ground repeatedly to keep matter, and other agencies. It is absorb- earth, or have ashes a peculiar constitu-

soda, which is nearly related in its pro-

gle stride from that remote era and un- Greeks and Romans, seem therefore alike method or process of ploughing or horse- getables; whilst on the other hand, ve- to vegetation, (potashes and phosphoric the original landscape has not yet been snown locality on the earth's surface to to have understood the effect of manures, locing with some kind of coulter or cul- getables rob the air of what is most acid) that they are everywhere and altogether obliterated in some of the exthe most ancient seat of c.vilization and though Hesiod, one of the most ancient of tivator to the crops, where each plant oc- grateful and congenial to their own ap-nowhere. A proof it is of the existence treme western counties. The large trees the arts; to Egypt and what is most wor- the Greek poets, whose works have come cupies a much smaller space than does petites, and restore it purified and cleans of a wise and kind intelligence that pre- threw out their roots in every direction

of agriculture, does not mention them turnips and wheat. Of course, when the ground is to be stirred between rows in our knowledge of organized nature, rebeen exerted, or something has been lib- from each other exactly equal, and that an explanation to a certain extent of the they may be extracted and strewed over a depth of ten, twelve and fifteen feet.uses of putrescent manures; but the in. the surface of our fields, so as to create in They are in search of potash, soda, lime, formation so acquired was with reason a them all a fertility which is not native phosphoric acid, sulphuric acid and a good deal more prized by the vegetable those blades of grass on which our do- carry up so as to be deposited in the indeed, the latter cared but little for it; mestic animals feed, or a stalk of wheat trank, limbs, and leaves. he could make very little use of it.

For it vegetables, the crops we culai, maturity, there are potashes and phos- tural course of decay or by being burnt especially of the last named substance of fertility that have been extracted from 1. The soil has to be loosened and mel- during the winter. Tall represented a be a difference in soils? Why should acid, the wheat stalk would say, in that certain distance into the ground, but a ed for two whole months, most thorough 1. The soil has to be loosened and mel- during the winter. Tail represented a be a difference in soils r why should soil, yet I found enough to meet my im-ity wet, and is pregnated also with what lowed by means of the plough or some rotation of crops to be unnecessary at not one be as good as another? For a long time we were unable to assign any mediate necessities, as if you burn me, helping to constitute what we call the satisfactory reason. One class of men-

in they had always found in the ashes of

can do something. We can su erection of a hone mill in each as to make the best and most ec use that is possible of the small amount of phosphate of lime we have our command-we can recommend the most careful search amongst the shell limestones of the low country for masses" containing an available per centage of this precious substance. And finally, we can warn our fellow-citizens of the danger of permitting whatever stock we now have of these constituents of a rich NUMBER XXIII soil, to run to neglect and waste. I think I can satisfy any one who will follow a fair and honest argument to its legitimate conclusions, and who will adopt

North Carolina, at the time the white actly such a forest as is now seen through sided over the creation of the earth and in search of the food, the moisture, and d to meet the wants of the animal. Sided over the creation of the earth and in search of the food, the moistare, and This was a prodigious stop in advance all that inhabit it, and that he has ordergrowth. The tap root goes directly When these which brings a single grain of seed to woody matters perish, whether in the na-Men of better sense and sounder judg. satisfactory reason. One class of men-one profession was as much in the dark analyze my ashes, you will readily dis-tending is simply one that is well under-

" Upon a knowe they sat them down, And there began a long digression About the lords of the prest) a."

i never see two waggon horses of a Satural or other day, when they may happen to be at leisure, standing together and thinking to each other for hours, without being desirous to know what ideas may be passing through the mind of each If i could get hold of a hog newspaper, in which there was a communication from as in Egypt, the kind of culture to which one who had lately been put up to fatten, expressing his opinions on matters and things in general, I should peruse his ar. by causes beyond human control. Durticce with extreme interest. He would ing four months and a half of the yearprobably state that the character of the minan race seemed to have changed and the first half of October-rain very great'y of late, and for the better. For hat, thereas a few weeks ago his venerable and venerated mother, a sow somewhat aged, with a large family about her, could never crawl, when half famished, through an opening in the fence around a cornfield and help herself to a break 14th without being cursed, driven rudely pelted with stones, beaten with a and her cars cruelly mangled and richy ferorious dogs; here he, the wriwas, in a comfortable yard or pen. corn or other savory food always ly-2 by him, a plenty of water supplied, catant sleeping place at night, so that was not his practice now to root any ours except for exercise and his own amusement. He had doubts, indeed, about are all this considerate kindness would i; but for the present he was comforta-, and very happy.

Now, upon the principles here laid wn. I can very well conceive that the farmers of North Carolina may be wilmy to know what a body of mon so ex-Ussively learned as are the Faculty of the University, think about their operations and upon farming in general. I assure you they entertain opinions upon these ing crop.

anductions of the poet Burns, is the Two feet probably of the deserts that horder blast, or rust, or unide w, or to any other of." of those casualties, which sometimes be other a plain, unpretending peasant, blight the hopes of the farmer in our own

> chanical, the overflowing of the Nile supplying annually the elements of a perenhual fertility.

seldom falls there. The rains commence

therefore mainly, if not altogether me-4. They esteemed ashes as a manure. 5. They were aware of the benefical

effects of irrigation. 6. Finally, they were not wholly igno-Palestine or the Holy Land, the thea-

rant of what is accomplished by a juditre of so many miraculous events recorded in the Scriptures, was a very different fallowing differed from ours in one parsort of country. With some plains of moderate extent, the greater part of its surface is rolling or broken. The rock that underlies the soil is limestone. Here, the fail of '56. the population are in a great measure, it not altogether restricted, is determined the three summer months, September,

in the latter part of October and continue through the winter and spring. It folrotes cleven chapters. lows that the rotation of crops must al On the origin and dignity | 6 Concerning asses. ways have been imperfect in that country. Our common Indian corn, even if known, could never have been cultivat- 3 On goars of both sexes and 9 About dags kids 10 About Shepherds. ed to an advantage in Palestine. Wheat About the hog. Concerning builts & cows. was, and is, as in Egypt, the principal grain. The soil has always been, and All this is, of course, very learned, and now, favorable to its growth and productiveness; so that with but an imperfect

not appear that the Hebrews were ever remarkable for their skill in farming That they made some use of manure in the time of our Saviour, appears from the parable of the barren fig-tree, which the dresser of the vineyard requests to have spared, till he shall have have had an opportunity to dog about it and damy it; af ter which, if it shall still continue unpro-

cultivation, the returns are good. It does

ductive, he consents that it shall be cut down. The means of improvement used by them appear to have been mostly mechanical; the loosening of the soil, and the eradication of the weeds, so as to himder them from interferring with the grow-

over again what he knows aiready. I have

ale to say that this is a free country.

besides the one we

-was yet to be called into being.

"Thesis de Magnesia Alba," in which he of this is to be found in the fact that the more.

carbon, or the coal that is seen at the will I believe, be conceded on all hands, dant crops. These two precious substan- to the surface, whilst that which had

On the origon and dignity of nock-brieding Onshe-brieding Onshe-brieding Onshe-brieding Onshe-brieding Onshe-brieding About the hog. Concerning usik & cove but with regard to the carbon, it is at first the needful books of reference, I cannot and at all deptus. But here I shall per-honor to address know very well what is f any one of the company now here shall sight by no means clear whence it is that speak with perfect confidence. I am of haps be met with an objection. Or meant us a gully or a galled place if a be pleased to enter upon the study of the it comes. Take, for example, a field of the opinion that not only to the Ger- what use is your elienistry after all (- field. This last name is well applied. in and read Vario, that he may learn corn at fodder-pulling time. There is a main general, but to Springel in par- You toll us that you have found out that They are spots as unsightly, and uncom large burthen of carbon in it-in the ticular, the larger part of the credit con- these substances are absolutely necessary, stortable, as those upon a working animal the shows are any, I have stalks, the blades, and the ears. There nected with the more recent discoveries indispensible to plants --that they are from which the hair has been rubbed off, we will leave the ancients then, pass is often very nearly, if not quite, as much in this field of science, and with the new everywhere and nowhere-every where and the skin chafed and fretted, until it by the dark ages, and come down at once carbon in the soil that late in the season views that are taken, is due. Another in small quantities -- whilst there are few has become tender at least, if not sore. A a comparatively modern times. Britian, as there was in the spring. From whence, prodigious stride, and one of great im- if any extensive and rich mines of them, person unacquainted with farming, who to comparatively modern times. Britian, as there was in the spring. I rom whence, proligious strile, and one of great intent of any extensive and rich mines of theory person unacquarated with farming, who the country of the anesstors of most us, then, has this constituent of the crop been portance, has impuestionably been made. Of what advantage, then, can it be to be visited a large field or farm, that was in derived? It was at length ascertained and its importance depends upon the fact to be advised of the important part they this condition, would be included perhaps and badly cultivated. Even after the revival of learning, the business of farm, the business of farm, use it is in the right direction. We are play in the vogetable work. Your offer to think very highly of it. The sides and method by different philosophers, placed by it in a condition not only to mator is the about as calculated as gravity to be that of the physician, who mening to be that of the physician, who mening to be that of the physician, who mening to be even to have a rich, ruddy color—the work at a higher level in regard to who was not at a higher level in regard to the years 1770 and 1800, from correct our own theories, but also to the physician, who mening to be controllar as work to the physician, who mening to be seen to have a rich, ruddy color—the whot source of the physician. either theory or practice than amongst what source it is that vegetables are sup prov. our practice. There is a science of the bedside of a patient should tel, him, cartic itself to be tolerably mellow and the ancient Greeks and Romans. The plied with the larger part of the carbon agricultural chemistry now, and its teach that he knew what was the number with pliable. I will turn in there, he would first considerable improvements were they contain; that it exists in a state of inges are of immense value. I have, first him, understood , his disease periodity say, with a good sharp, heavy plow, break suggested by a man in whose views and combination, united to another elementa- of all, to state briefly but distinctly what well, and could relieve how with case, if it up well, and show these stupid farmplans for a lietter method of culture, truth ry substance, in a gaseous state, diffused they are. \_\_\_\_ plans for a letter method of culture, truth ry substance, in a gaseous state, diffused they are the conid only furnash marself with the ers now to raise corn. And those same and error were strangely mingled. Down in small proportions through the atmos When vegetables are burnt they leave appropriate temed as -but unfortunately farmers whom he characterizes as so sta

when vegetables are burnt they leave and error were strangely mingled. Down and erro pardon me, I do not mean to read." I semblance to those of our own land. They five years ago, Jethro Tull published his stance we breathe. If it exceeds a cerits capacity of growing slowly indeed, restore them to sound and perfect health, incurable, are exceedingly difficult to be parton me, I do not mean to read. I semblance to those of our own land. They five years ago, settire Tull published his same we oreather. If it exceeds a cer- its capacity of growing slowly indeed, restore them to sound and perfect health, incurable, are exceedingly difficult to be stand here, then, as the unworthy repre-sentative of the University, in the pres-ence of the farmers and planters of the forms of rain, effect produced by a careful cultivation of moisture, under the forms of rain, effect produced by a careful cultivation of the forms of rain, effect produced by a careful cultivation of the forms of rain. State, to discourse to them about their hail or snow, instead of being contined and the loosening of the soil, he dress the pecially by females, for the purpose of close connexion. Vegetable matter gen It is not to be denied that there is some

rather than besaut serve, and apply their manures as they any valid title to it, the name of agricul, securs to furnish decisive proof that they That the soil from the course, and in conportant crop, is sown. As the atmosphere are cultivating are to be rooted out, or had done before, and at the same time tural chemistry. It was not, in fact, en. play an important part in the economy of sequence of the events and changes by of that country is always dry, at least as the crop is to be kept clean. Solomon adopted his methods of careful tillage, titled to the name, and for a number of the plant, and are essential to it, as they which it has been formed, is necessarily will as successful in execution, of the or portions of the earth's surface, (an et represents bimself as having "passed by and his great panacea for so many of years 1 was accustomed to deny that also are, the greater part of them, to anithe field of the slothful, and by the vine- the ills of agriculture, horse-hoeing, for there was any such science as agriculture in als of different races and kinds. Of the subsoil, is therefore to be retained in its probably of the man void of understanding. The subsoil, is therefore to be retained in the particular uses of each, and what the particular uses of each, and what its position by all the decent and honest Expert on either hand, the changes are accomplished through its particular mas of care and hours in the particular mas of care accomplished through its position by all the decent and houest the particular mas of care accomplished through its position by all the decent and houest the particular mas of care accomplished through its position by all the decent and houest are changes are accomplished through its position by all the decent and houest are changes are accomplished through its position by all the decent and houest are changes are accomplished through its position by all the decent and houest are changes are accomplished through its methods we can employ. Amongst these, instance of the English Board of Agricul, agency, we are wholly ignorant. It is position over a. They understood the nse of stable or 3. They understood the nse of stable or ry it forward to a perfection, the attain-ture, which were afterwards-published, and horizontal plongli-ture, delivered in London a course of lee. which he may never permit a human the deep subsoil has been in a course of farmy aid manure, though they do not ap-ment of which had hitherto been regard-on this subject. They were written with hand to lift the veil; but in the mean enrichment for ages, and what the final country. The agriculture of Egypt was pear to have valued it as highly as do the el as impracticable, was as yet unknown the elegance and precision which characterize all the productions of his pen, but our own advantage the knowledge we I suppose it requires not the wisdom of a The origin of the modern chemistry so far as the information they contain and have already acquired. I recapitulate. Solomon to determine and decide. What

dates no further back than a single cen- the new facts they furnish are concerned, therefore, the facts to which your atten- we need at this time, as it appears to me, tury. In 1756, Dr. Black published his were of no considerable value. The prost tion is more particularly invited, once more than anything else, in agricultural

chemistry, is, a long series of analyses, clous rotation of crops. Their method of showed that, besides the air we breathe, interest they awakened was only tempo-Potassa or potashes, as they commonly extending not laterally but vertically. there is at least one other kind with pro- rary ; it soon died out, and the whole call it in the market, and phosphate of not an account of the composition of ticular: it was extended through a longer perties wholly different, and it became subject lay neglected for a number of hore, are found to be contained in the parcel of soil taken in Edgecombe, and of period. The field that was to be sown probable that there are others still; not years. An intelligent friend of mine, in ashes of all or nearly all the vegetables another from Rowan; a wheat in the year 57, was ploughed for improbable that there are many other the soundness of whose judgment, as well we are in the practice of cultivating in thing for parcels from different depths. the first time in the way of preparation in such substances. Chemists entered with as in his general fairness, I have great this country, which we infer that if not Suppose a deep well to be dug here in ardor into the new field of investigation confidence and who had, at least, paid absolutely indispensable, they are very Raleigh, and the earth examined, which that was in such manner laid open to great attention to the subject of agricul- important and useful to the plant, and is taken, at the surface, and at the depths marl was understood, and its application them and the constitution of vegetable ture, told me that after reading Sir Hum- when they are present in considerable of 4, 8, 12, 16, 20 and 24 feet, till we practiced in France and Britain; whilst, if matter became, so far as relates to the phrey's book carefully through, he seem quantity in the soil, promote very great- come to a point where the decomposed not unknown, it was at least neglected in great facts and principles connected with ed to have gleaned out of the mass of ty its fertility. This is not mere specula rock differs but little in constitution from it, pretty well understood. Vegetable chaff of which it is in the main compos- tion and theory, but it has been fully es- such as is still solid. The information From agriculture proper, one of the fibre of every kind, as seen in frees, in ed, one idea both valuable and new, and tablished by experiment. Fields that afforded by such analyses would be val authors before me, Varro proceeds to the grasses, and the other products of culti no more. Some exaggeration, it may be were utterly barren, and in the soil of nable, inasmuch as, amongst other things, subject of stockbreeding, to which he destances, viz: oxygen and hydrogen, which the worth of the countributions of Sir tected, on receiving a generous applica- relation to the safety of such kind of deep are the constituent elements of water and Humphrey to agricultural chemistry, it tion of that substance, have yielded abun- plonghing, as shall bring the deep subso

he could once furnish marselt with the ers how to raise corn. And those same

own peculiar business, and to offer them to particular seasons, occur, as with 'ns, conclusion that the one and only thing suicide in Paris and elsewhere. It is a erally leaves a considerable quantity of show of reason in these objections. - speaking of what is most common and counsel in relation to matters, which they in succession -one or the other of them, required for the production of a good crop product of respiration, of combustion, of ashes. Is this what Tull supposed? - But they may be met so far as the general. And we can see the reason why

and share on the state of the state of the and the state of the