## FOURTH ANNUAL SHOW

OF THE NEW YORK STATE AGRICULTURAL SOCIETY. The Editor of the American Agricultu-Poughkeepsie, on Tuesday, Wednesday, process of soaking in certain chemical so. And Thursday, the 17th, 18th, and 19th jutions." Mr. Campbell, hinself, des-of September, and was more numerously cribes the result of the experiment thus: I must be permitted a little criticism. It attended, and realized a much larger amount of funds to the society, than any exhibition yet held. The number of vi-sitors were computed during the three during the three of the second hand of a vigorous dark in the hill, without some of its most imdays of the show, at no less than 30,000, green colour. The seed was very hight, portant cdvantages. Suppose a small and the number would have been greatly not exceeding 37 lbs. per bushel, and con-increased were it not for the dust and ex-cessive heat; still the country made a try. The average number of stems from the moisture of the earth and the rain good turn out, and right glad were we to thirty-three seeds, is eleven or twelve to would gradually dissolve it, and the seeds find the number of ladies present nearly, leach seed sown, and the gross apparent would readily absorb it to the full extent if not quite equal to, that of men. The produce between five and six hundred amount of receipts at Poughkeepsie for fold." The solution in which these oats membership to the Society, and tickets of were soaked, was that of sulphate of amadmission to the show ground, principally monia. He prepared it from the carbonat one shilling each, was about \$3,700. ate of ammonia humself. He also used In addition to this, the citizens of the village and its neighbourhood, defrayed the expenses of erecting the edifices and fenc- these in combination; but he seems to small place where the salts are: What ing the ground, costing about \$1,700, think the sulphate the best, though all the for ? Are we to be informed that the roots making a total of about \$5,400 received."

The want of space forbids us copying It must undoubtedly have been a most acre. magnificent and instructive spectacle to pound of carbonate of ammonia and disbehold. soil, and of the work-shop, of the extensive republic, concentrated within the li- ground gypsum (or plaster of Paris,) and mits of an area of ten square acres. We were not present, to have examined for occasionally. ourselves, and to have reported to out plaster of Paris has completely settled readers, such matters of general interest at the bottom of the vessel, pour off the as may have come under our observation. clear liquor into another vessel, and

## NEW SYSTEM OF MANURING.

in Scotland, in relation to the nutrition of ter to the lime and stir it well again; let plants. It may be summed up in a few it settle and pour off as before into the words, thus—that a sufficient quantity of other vessel. The object of these succes. the elements of nutrition may be absorbed sive washings is to secure all the sulphate ter, atmospheric air, &c. It may be safeinto the seed of wheat, oats, barley, &c. of ammonia that may be in the lime. to ensure a very large produce at harvest, The result will be, that there will be in without any other manure. The gentle- the twelve pints of solution just one pound man that suggested the idea made experi-of sulphate of ammonia, which is the ments at two successive seasons, (in 1842 strength of the solution directed by Mr. and 1843,) with complete success, and the Campbell. And these twelve pints, or Highland Agricultural Society of Scot- one gallon and a half is the quantity reland, have published in their Transactions, quired for one bushel of seed. The cost magnesia, which is an essential portion of a detailed account of the whole affair. of the carbonate of ammonia is about 30 all the graminee? Whence, also, will it The experiments were tried on oats and cents a pound at retail; the plaster costs obtain the silicate of potash, if there be barley, and the produce, especially the comparatively nothing; therefore, if Mr. neither potash nor silicic acid in the soil ? oats, were exhibited at the Society's exhi- Campbell's theory he correct, it will cost Will sulphate of ammonia alone, in a soil bition last fall, and were of remarkable but 30 to 60 cents to manure an acre of taken six feet below the surface, and in quality. In their Transactions, the So-ground for a very large yield of wheat, which there is no humus or organic mat-ciety speak of them in these words:— joats, &c. The length of time Mr. ter of any kind, furnish all these or any of "There was perhaps no object in the Campbell left the oats, barley, &c., in these essential elements of vegetable orexhibition of plants in the Society's Show soak, varied from fifty to ninety-four ganism? As hinted above, ammonia furat Dundeo, in August 1843, which attract- hours, at a temperature of 60 deg. Fah. nishes to plants nothing but nitrogen ; nied such general attention as the remarka- (renheit. Barley did best when steeped trogen does not enter into the composition bly strong and vigorous oats, growing in 160 hours. Rve grass, and other grani- of any one of the above named elements, soil, exhibited by Mr. James Campbell of inous seeds, do with soaking fifteen to plants receive much, if not most of their

rist says, "This great event came off at their seed having been subjected to the ficient. solutions of nitrate and muriate of ammonia, and nitrate of soda and potash, and all others produced favourable results. As are thus sent out in search of inorganic these experiments cost but little, and can matter, air and water only? Again, does lengthy extracts of the proceedings which very easily be tried, I would recommend sulphate of ammonia comprise all the eletook place at this great farmers' jubilce. all farmers to make them with at least one ments of nutrition that compose the food The simplest method is to take one The choicest products of the solve it in five pints of pure rain or river that is, 100 lbs of straw contain 38 lbs. of water. Then take one pound of finely carbon; and 100 lbs. of wheat contain stir it into the solution of ammonia, and can only furnish the necessary (but absocan truly say, we now regret that we let it stand twenty-four hours, stirring it lutely essential,) nitrogen, nothing more. add four pints of water to the lime, stir it well, let it settle, and then pour off the clear liquor into the other vessel as A singular idea has just been suggested before ; then put three pints more of wathe Educational Seminaries of that town, twenty hours, and clover from eight to carbon from the atmosphere; and why The soil in which they grew, possessed no ten hours. He does not mention the time may they not also receive their nitrogen peculiar property, except that it had not required for the steeping of wheat. Of from the same source, as atmospherie air

been manured for eleven years. The vi. course a much shorter time will be re-gour of the plants, according to Mr. quired than that for barley or oats; pro-Campbell, was entirely to be ascribed to bably ten to fifteen hours would be suf-

> of their capacity, and the growing plant would take up as much of what was not absorbed by the seed, as its future growth required. But it is obvious that this would only be of much advantage during the very young state of the plant. Its roots extend every way, far beyond the of wheat, barley, oats, &c. ? Let us see. Straw contains 38 per cent of carbon ;-43 lbs. of carbon. Sulphate of ammonia When th. lime of the If, therefore, as Mr. Campbell asserts, oats soaked in a solution of sulphate of ammonia, and planted in a tilly subsoil taken six feet from under the surface, and in which there is no humus or organic matter of any kind, produced from five to eight stems of prolific oats, then we must conclude that a sufficient quantity of carbon ly admitted that the plants do obtain from these sources, an abundant supply of carbon; but that they do not thence obtain their potash, phosphorus, magnesia, silica, &c. is well known. Again, supposing there is no magnesia in the soil, whence will the wheat plant obtain phosphate of

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