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No. 3 .

# EDUCATIONAL. 

1.‥-THEORY OF EDUCATION.

## MORAL EDUCATION-WMAT USE SHOULD BE MLADE OF 'TIIE BIBLE IN SCHOOLS.

In our last article on Moral Education, we showed that natural conscience is not $n$ sufficient guide, that the light we derive from Nature and l'rovidence, however valatable as an auxiliary, in certain circumstances, is equally incompetent, and that the Bible forms its only infallible illuminator and director, alike in the regulation of conduct and in the formation of character. If we are to have a sound moral education in our seliools, the Bibie, the whole Bible, the Buble free and unlettered by any stipulations or comatitions, must be used.It is just as essential, in moral cducation, to base our procedure on the only unalterable standard of morals-the Woril of God, as it is to base our secular lessons in Astronomy or Mechanics on a Newton or a James Watt-and our physical excrcises, on the princple of military obedience, promptitude and precision.

We return to our theme and proceed to show the use that
ought to be made of the Blible in schools, that the moral edincation of the young may be most extensively promoted.

And, first of all; we remark, that the Bille ought to be used in the devotional exersiscs of the school. That the Bible ought to be weel in every formal act of devolion, whether of a more public or private character, is a position which no professing Christinn will for a moment dispute. The graud and important question here is, whether in such exercises it ought to be accompanied with any ammysis of its terms, or with nny explamation of its meaning; and if so, of what nature. 'That, on such occasions, it ought to be accompraied with some exposition of its import, or with some enforcement of its leasens, in order that it may further the great end of the moral cillucation of the young, we have not the slightet heritation in affirming. We would not undervalue the simple reading of the Scriptures in school, neither would we resman the agency of the Divine Spirit in rendering that reading protitable, or efficacious for the necomplishment of those purpeses for which thes Scriptures were given. But the real question here is, Have we done, in this exercise, all it belowes us, as instrut ments, with the view of promoting the morn chacation of the young? We say as instruments, for it is God alone that cam move and influenco the heart, so that the obedience of those on whom he thus operates shall not be a mere formal, external, lifeless obedience, but sincere and cordial and checrful, proceeding from the highest motires, and with the most single-
ryed sum and emi. This is the prerogative of the Almigity, bint ne know that here, as cleewhere, he uanally operates by menne. And what are tho means we ought to employ, in the momal celuention of the young, in the nse of which wo have a sure and ralid ground to expect lis blessing? lintoubtedly, wo reply, one of thore menns is the exerciso of the understanding, ns mell we of the ege nud memory. Thefote the henet ran be influenerel by the virtues and genees that sulorn humanity, a knowiculgo of them must pasa thmugh the umburpanding of the young. It in the prosince of the riluentor to ece that this is done; and, if he do his part, Gext will ilo his. Ihat may not this lee effected through tho rending of the Word itaclf? Mont certninly not. Every ono who has queationed young perems on any portion of Scripture which ling inny linve rend, will acknowledge how marrellously little is remembered or has been appreliended by them. Too generally word hare been communiented and not ilens.The emblem lina been rend, but to pictormal representation lins lieen given, and therelore the trult conched under it has neither been npprehended nor received. 'The historienl portion of Serpurare lins been rend, and the young peranas may resnember tome of tho facta of the narrative; but the lesson which might ho raluable for lifo nall gedliness they do not sce, and therefore they connot draw it for themselves. Children do uot anturnlly apply the lessons, and, not being alluded to lyy the tencher, it is not npprehended at all. 13ut over and atove all his, the mandinte of tive Author of the libible in nut merely to remi, bat to search the Scriptures. All remember the eulogium pmounced upon the imbubitants of Beren sund the ground thervor? "These were more nolle than those in Thersulonica in that they reecived the Word with all readinees of mind. nad aenrehed the Seriptures dnily whether those things were so." And surcly this term search implies something more thun a mere curvory reading or perusal of the Sncred Scripturres, term an honest, determined desire, in the use of every leguimnte meana, to underzennd their true import.And get agnin, of what avail would the mere rending of the Word the to the moml eduention of the young? The moral education of the young is neither more nor hess than the redueng to pracuere of the precepts of the Divitue Testimony, but how could these precepts be inculented and enforced unless they are thorughly understond? The whole meaning of a pasage or trat of Seripture fregnemly rests on one or two words. It lhese are not understool, the reader may with equal profit remb ho whole passige ina loreign tongue. And how, in ruch corcumitances, could the lesson, intended to be conveged, be applied?
Thus th is phan, that if we are to hase moral elucation in the fehosil. nod that education founded on the Sacred Scriptures, these herptures must be comprehended in their brond fentures, mellectually at least ; and here comes in the instrumentulty of the educator. It is his province, in the use of every legomate menns, to convey to the minds of his scholars a elvar undersaming of the prasinge read, in orter that it may be apphed in rugulating their combluct at all times and in all places. And.what is the means most lihcly to produce the denired end? ? ${ }^{1}$. he, the educator, to endeavour to consey the meaning of what is read by instruction or by explanation in words more or less simple. This is the course pursued by not a few, who oflentimes lounch forth in formal discourse and elofuent sturims, ull explanatory, it is true, of the subject, but whether it may, or way not, be comprehended by the pupils
is nnother matter, nnil for the nsecraining of which im erate. matic meane are taken. Or is it to be done by a matechetiral procass, nedding to the instruction imparted a certain number of questiona, to which anamera ner demanded? He may adopt this plan, and set fail ngain; or, at nay rate, in combmunicating to tho minds of his sclininrs clear ambl nceumer idens of the meaning of the pasenge read? What, then, it he to do? Ile is to make tho Great Tracher his pattern nad model. And what mas the methon pursued by Ilim, in all hia nddresecs, collonuys and discoureen, as well as in all his answers to tha captious envillings of his enemics? 'Though in Ilim drelt all tho treasures of risdom and knowlelge, get hir uniformly stoops io a level with thoso whom lie adircesed, ant, by borrowing figumavo illustrations or pictorial representstions from objects or things with which his nuditors were perfeelly fnmilinr, he commanirates knowledge plain to the underatanding of all, and shuts them up to certnin conclusions and convictions which they could neithre controvert nor gninsay: Does Ilo ait on Jacob's well wearicit and oxhmated with his journey, and does a woman come hisher to draw water? IIf, at once, enters into conversation with her, mand taking the he-verage-water, an an emblent of the bleskings of antaition, he deseants at length ujon these blasinges. Do the Phatisteas desire to entrap him on she matter of civil government, and do they come to him mud any: "Is it lawfill in givo tribnte to Cresar or not? Shall we give or shall we net give? But he, knowing their hyperisy, snid unto him, Why rempt ye me? bring ne a penny that I may see it. And they brought it,And he anid unto them, Whose is this imnge nal superseription? And they suid unto him, Casar's. And Jesus answer. ing said unto them, lender to Casar tho things that are Cine sar's and unto God tho things that are God's. And they marvelled it him." Again, does the same party wish to fisten upon him the charge of Sabonth violation? "They wathed litn to see whelher he would cure on the Snbbnth day:" Our Snvinur lowked on them and asked, "Is it Inwful to do goond on the Subbath diny or to do evil, to save life or to kill? hut they held their perace." Ite did not tell the Pharisees whether it was or was mot lawful to do goxal on the Sabbath dny; he appentel to their conscievies ; he trained them; they felt the rebuke; "they hold becir peace." Does he sit atmant in the honse of Simon, lue Pharisee, and does a woman stand behime him werping, "ashing his feet with her tears and wiping them widh the hairs of her hem, and does the lharise when he saw it speak thus within himself, "This man, if he were a prophet, wonld have known who and what manner of woman this is that toncheth him; for she is a sinuer?" What moswer did Christ give to the reasoning of his host? Does he saty in so many words that this woman, though agteat sinner, hat been forgiven all her sins, and that, in token of the genuineness of her penitential sorrow and ardent affection, she hand performed this service? No. Whnt then? "And Jesus answering said unto him, Simon, I have zomewhat to say unto thee. And he eaith, Master, say on. There was a certain creditor who had two debtors; the one owed five lundred pence and the other fifty. And when they had nothing to pay he fraukly forgave them both. 'Tell me therefore which of them will love him most? Simon answered and said, I suppose that he to whom lis forgave most. And he said unto him, Thou hast righty judged." Then he turned to the woman, and made the application. Such is a specimen of the mode in which Christ taught-of the way in which he necom.
molated himself to the capncity and experience of his nuditors. And this course he pursued, not on great or axtmondinary ocessions, as in his more furmal similes and parables, but in namest all his replica to his cuptious cavilers, and in almost all the intecrourso ho held with individuats. No ono ean poruse with any attention any of the crangelieal slorius, as nar. mited by Mathow, Mark. Iuke, or John, without pereciving this feature not onis prominently held forth, but porvaling every page and nlinast every sentence. And why, it may be nsked, did the Divino ledeemer so uniformly ndopt this mothonl? Ifo did so, wo would remark, in the first place, in entiro accommotation to our eemsible constitution. Ito who fashioned us, and uceded not that nony should teatify of man, was thoroughly converant with our dependence on our perceptive faculties, anth that tho grenter the mumber of renses brought to bear on any ono lact or subject, tho rendiser will be the access to the understanting nad the more vivid tho impresion produced. Agnin, the Snviour employed thit mothod with thoso ho ndidreseed that ho might exercise nat do. velop and strengiten their rational prowers, with tho wow of realering them subservient for tho necomplishment of theso purposes for which they were given. His methol, intollectually, was out nad out The Training Method, and he therefore only employed illustratious which were suited to the experience and occupations of thoso ho nidressed. But, ugnin, tho litine leedeemer adopted this methoil, in orlor that by their own rensomngs or fimbings ho might shot ul his hearers to certain moral convictions, from which they could not make their escaple. Wrecked and rained though natural conscience may bo by that sad catastrophe whinh hus befallen the species, yet the Divine Redeemer never overlooks its existence, but uniformly nppeals to it nud uses it as tar as it can go, or acconling to its capabilitica, as un instrument for the eflecting of moral results. He never rerorts to Divinc, or supermatural ageney, until he has exhnusted that which is natural. He, in one word, pays the most protound rexpect to the use of means, of secondary agency, and only betakes himself to his ombipotent energy when the other fails in the necomplishment of his purposes ; and oven then it is alwnyn in company with the other. In this waty the dinty of mun and the prerogative of Deity atrihingly harmonize. Ifence, the beauty and force of the expressions, "If ye do his will, ye shall know the doctrone whether it be of God." Such was the mode of instruction pursued by the Great Teacher, and surcly there is no need of any argumentation to show that here, as in all his actinge. he was perfect, absolutely perfect. None could know better than IIe who fishoned us the latent principles of human action, or the most accessible way of reaching the underetanding and the conscience; and, if this mode was uniformly adopted by hum, then the path for us is elearly marked out, we ought to walk in his footsteps-we ought to make him the model of our imitation, both intellectually and morally. In the intellectual education of the yong. it is the bounden duty of the educator not merely to sumply the appropriato fowel, or the betittung subject for the cultivation and development of each faculty, but to supply it in a way by which they shall have the opportunity of exercising their own powers, by which hay shall actually do the thing themsulves. This can only be done by imitating the Great Peacher, viz., by berrowing illuatrations trom objects or pursuits with which they are familiar, and lealing them on, step by step, from the knowa to the unknown, from the visible to the invinible,
from the Impprat to the ctemat. Aut this by a process of queationing nud rilipaia, removing every lifinculty out of tho Why, liy lumprting suy nexeled information: nad, when thes nre nblo, nllowhig then to walk, intellectually, themeelras. And new let ua apply nll this to the method which the educator ouphe to prarano in a appinining Seripture to the goung, in makling lta trulla nuid itn precepts plain to tho understanding of lhes mennent intallect. is it, for exnmple, Seripumal terma, a elvar entrenpion of whose meaning hin wishas to communienta to then mindo of his pmpile, and aith such the libibe liternlly abouthls; auch us thos serms wisdom, kingdom, salvallon, rednmution, Rlory ; or, tho mames and titles of Clirist, auch an lhuck, Shepheril, Briblegromm, Day-Star, Light, Sife, J'rince of l'rnee, Lambl, Juige, Ne., de. :-what is he, in thoso circumammeta, to do? Ito is to picture out, by familiar illusirntion, thu nbatrust menning of tho term, and lead them on, by thes puncenn alremily relerrel to, to tho conventional or Serjpural muming. Suppose, fiur example, he takea the term whilom, a frim whili oceurs somo humireds of times in then
 all heer pultis nro punco;" "So tench us to number our days that wo mins upply our luents unto wisdom:" "Tho fear of tho lame fo thes begitumbers of wislom." "Now, it is an almost univeranl finct," anys Stuwe, "that nll children mistako tho meaning of the torin vishlom, anil naswer that knotulelge is riadnoll. 'Illuy, lowever, may be led to perceive that nllimportmit dintinction, when you suppore a boy knotoing that thes fire will hurn him, and yet thrusts his finger into the hinmes. What in he: or what would you think of the man, who, knowing that tho houso was burning about his head, instend of rumining out, jut ant atill. ns if in perfect security? When pletured out hy atuch fatuiline illustrations, the children will fuluckly tull you that they believe the netion is tho wisdom, nut the mers knowlenge-that wistom is tho right npplication of knowledger 'Tho sume with glory in ordinary life, and the glory of thes sunt, moon and stare, and all God's works-the glory of Clorist'x work, and being in glory with him, crowned will ginry, amil reflecting his image-So Salvation. 1 maj bo suved from drowning or from ctermal death. A finito crenture might lo thes me act-the infinite Sawiour alone can do thes ohere" Or is it a Scriptural emblem, embodying a great nuld innuritnut iruth, he wishes to make plain to the underatanling of his acholurs,-what, in these cireumstances, ought Lus to do? Supposa it is some such passage as this, and the Biblu liturally tems with such, "As the hart pantech after tho waterbibookn, so punteth my soul ufter thee, $\mathbf{O}$ God."In hue, in in very cflell done, to expatiate on the history of Duvill' Might from nad persecution by Saul, which called furth thone expreasions, withom any allusion to the emblem, "As tho hart panteth?" Or is he to enlarge on the aspiontimen of tho smatilied soul nfter God mad divine hinga, and unjuecinlly what that sual hatw been shat out from communion will Cial in thens pulhic ordinances of his grace, which have oftentimex provel so satisfying and reviving, with, perhaps, " ${ }^{\text {ponxing}}$ nuticus of the condition and circumstances of David when hew penamad the psalm of which these worls form a part? Such un uxpusitiun, ur mude a explanation, would, in our opinion, bu not only above the compreheasion of the generality of chilidren, lut in direct opposition to the mode purstued by the nacrud pommen, and especially of the Great lemeherwould, in find, be neither duing justice to the semiment of inapiration, nor to the mode pursued by infanite wiadom. In
orice to bring out the lezeon intended to be tanght in this pasage after a Scriptural exnmple, or in aremriance with the natura' and Imining eyalem, the cellurstor ahoulil, first of all, preaent to the children a pieture of the nature amd lintits of the animal here referral to-athe pmating of the atag-ita circumatanera it tho time-puraued by the hunteman, on the mountains of Judea-moder tho infuence of a ropical aun :and, juse when nbout to rexigh itaclf to its pursutura, expying all as onee, from the lm of romo eminence, $n$ water-hrook into which fit may hnvo plunged or itrank from ont some former oecasion, it bounds with ano lenp into tho brook, and
 in its maluts. And all enrried on by a process of quastioning and ellipees; not of acrunonixing or lecturing, but quastioning nond ellipses: not questioning alone or ellipeas alonc. but bolls logether, unill $n$ full pieture of tha ecene in presented to tho mind's cje ne palpalily and distincely as any visiblo object is presentex to the naked cye. 'Inus, when "an tho hart pantelh ander tho water brooks" hans been from the rery first pietured ont, the chutiren, jutellectunlly nt leant, will enaily perceise the nmalogy : "So panteth my soul nfter thec, O God." 'rhey are preprared also to draw the practical lesaon from auch if-
 and attention having been nerakened by that whish nover lnils to plenec, vix., $n$ natural pieture. Does the portion of Scripture thint is read consist of $n$ piece of hiograpliy or deacriptive history. The province of tho eduentur in thate cast in net only to see that the facts unrrated nre apprebended and enrefully atored up in the memory of the scholure, but that the lessons intended to be taught ary driswn and under. slood. How unen do we find the young perfectly familiar with the detnils of amo thrilling lible story, manifesting the deepest iutereat in these details, and yet ulterly ignôrant of the lessons ineuleated, and by consequence, deriving no practical benefis therefrom in the cultura of conacience.How often, fier exnmple, is the story of Cain and Abel, of the offiering up of Imace of Joseph, Moses, Samuel and the like, perusmi, amel perused orer and over agnin, with the keenent reliah sud delight, and yet the scholars have no idea of the moral of the atery, or of its bearing on their moral cducation. The marrative umbolice, it may be, vastly important trull, nad that truth convejed in a form in every way adapted to thetr muture ns itnitative beinge, but they have no discermmens of its import, no appreciation of its value.And what nignifies ull bible knowledge unless it is reduced to practice in our genernl conversution, unless it exerts an intluence over the tenour of our houghes and acts? And here it behotes the educator to see that these effecta are produced, not by telling the scholars the lessons so plainly deducible, bat by directing them to deduce these lessons themselves, und by secing them practically applied.
Such is a lorief sketeh of the way in which the Bible may and ought to tee used in schools, it it is to serve the great end of a gude in enlightening and directing the conscience in mornl educhtion. We are not ignormit of the difficulties connected with thas subject, or of the objections that vill bo bruaght ageinst it. Theso wiflicultac: and objections arise prineppally from the fact that our community is made up of the different brancles of the Christian Church, and that it is impossible: for a teacher to expound the great principles and lessons of Bible morality without muking encroaclaments upon the peculiarities of some one denomination ; that, in
fact, any conscientious teacher who renlures lo explain any prasenge of the Seripturea, though it may consist of nothing moro lian to draw the distinction betreen the words knore. ledge and reisdom, worle that occur humiredts of times, must necessarily be under the influance of denominational viuwn and tendencies. This wo trold to be a gremt ctelusion. If a ieacher, holding his aituntion under ta national aystem of education, betrays auch an amount of narrow-mindechesas and Gigoley as to gire, in his expianation of any word or pas. eage of inapirationa denominational intorpretation, wn would unhemitatingly promounco him to loo profeanionally anifortig of the position ha hehls, and that ho ought to bo summarily dismissed. What would be thouglit of tha minister of reli gion, who, on the ground of our common salention, had been invited to oflaciato in the pulpit of ono of nnothor denmina. tion, took tho npporsunity of commending his own peculinri. lits and invuighing agninst thovo of tho congregation he adilressed? lis would be, unquestionably, dunounced as guilty of the moat flagrant indiscrotion, nod an not only acting an uncheriatian part, bus in diametria opposition to the apirit of those who invited him to eccupy his presens position. And so would it bo with thu tensher who would thus pervert tho menns of unefulness placed within his aphere: he would and ought to be consider cd ns unworthy the position ho holds nud summarily dismissed. And would lis conflnement to tho great brond principles on which all nound morality is bnech,-tho love and the fear of God,-narrov his rango of observation, or curtail in any way his sphore of operation as a moral eduenfor? No; not in tha luase degrec. llis offee, in lemaling his aid to his pupits with a viow to :huir anderstanding any passigge of tho bible, doces not consist in sermons or lectures on dugenatic therology, or in discussions upon deep controverted points in religion, bu: in the unfolding of tho plain preceptas of Chriatimnity, in the enforcement of the practice of religion, and tho motives thas onglis to aninate us in our obediunce. Whether, therefore, we consider the nature of the subjecta embraced in his explanations, or tho mode in which theno explanationa are given, so ns at once to train the incelleet nind the conacience of the goung, we cannot, we think, fiil to perceive the groundlessness of the objections sometimes urged ngninst such a procedure, and the untrar rantableness of the fears sonsetimes entertained.

## II.-PRACTICE OF EDUCATION.

## MENTAL ARITHMETIC-INTEREST.

We: have already devoted considerable space to the practice of Mental Arithmetic. In our last, we endenroured to show how it might be applied to the computation of the prices of those commoditics, usually bought and sold by the merchant and the farmer. We sill now proced to present our readers with a few practical sules, by which calculations in interest can be readily made, without pen or pencil.

The interest of $£ 100$ for 1 year, at 5 per cent., is 100 shith lings; i. e., 1 shilling for every pound. One perceives nt n glance, that at 5 per cent., every pround in the principal pro-
duces 1 shilling of interest; every 10.., fud. ; 3.., 3d.; \&ec.Therefore little computation is necessary; wo have only 10 call the pournds of the principal shillinta, dice redtrec our ahillings thus obtained to poundes nod multiply hy the nomber of ycars. For example:
 Call the $\mathfrak{K i 2 7} 10 \mathrm{~s}, 32 \mathrm{f}$. Gil., aml reduce to pounds. 327 s


What in tho interest of 1163 11s 8d. for 3 years at 0 per
 13s. 7d. ; 27 13s. 7d $\times 8=\mathfrak{L 2 3} 0 \mathrm{~N}$ 9d. Ans.
There aro 12 months in 1 yenr, and 12 pence in 1 shilling. Now, if the interest of S 1 for 1 genr is 1 shilling, the interest of tho kamo $\mathcal{L 1}$ for 1 monti is 1 penny: Hence; To find ineerest for montha al o per cent., Consider lire poumis as jenee, and multiply by the number of inontion-

What is the interest of $\mathbf{5 3 9}$ for 1 month at 5 per cent. ?Call the C3I, 83d. $=2 \mathrm{~s}, 3 \mathrm{~d}$. Ans.

What is the interc3t of C 127 2a. Bd. for 1 month at 5 per cont.? Cnll 21272 s 6il., $127 \mathrm{gld}=10 \mathrm{~s}$. 7 g d. . Ane.

What is the intercst of 2218 15s. for 7 montha nt 5 per
 $=\mathcal{L} 6$ 4s. 8 dic. Ans.

But tha usual rate of interest in this country is 8 par cent. We therefore invite specinl nttention to the following rules for both monks and dayes at 6 per cent.

20 computo interest for montis at 6 per cent.: Incruaso the units' ligure by a fitho of itself, and call the result pence; take the other figures ws expressing shillings; and multiply by the number of months For examplo:

What is the interest of $£ 135$ for 1 month at $G$ per cent. ? Tho units' fgure, 5, incrensed by a filh of itself, is 6 , i. e., Gd.; and the other figures express 13 shillings. So tho answer is 13 s . Gd.

What is the intercest of $£ 41$ for 3 monthe at 0 per cent. ?-



What is the interest of $\mathfrak{E} 413$ for 7 months at 6 per cent.? Call £.113, 418, 3 3-5d. $=£ 2$ 18. 3 3.5d. ; £2 1s 3 3.5d. $X$ $7=$ £it 0 s 1 1-5d. Ans.

What is the interest of 1215 for 3 monthe at 6 per cent.? £1215, 121s. Gd. $=£ 6$ 1s. Cd ; fO 1s. Gd. $\times 3=\mathcal{E} 18 \mathrm{ds}$. Gal. Ans.

To find inerest for dnys at fiper cent.: Multiply the principal by the days and divide by 3 , or multipls one of them by a thind of the other; cut off the two right hand figures, divido them by $8 \frac{1}{2}$, nud take the result ns pence; and consider the other figures as expressing shillings. Reject a penny for every six shillings contained in the result.

What is the interest of $£ 08$ for 21 days at 6 per cent. $?$ One third of 21 is $7 ; 93 \times 7=651$; cutting off the two right hand ligures this becomes 6.51 shillings; 61 contuins $8 \frac{1}{2}$ 6 times; hence $6.51 \mathrm{~s} .=63 . \operatorname{Gd}$; but 1d. must bu subtracted, which makes the result Cs. ©d. Ans.

What is the interest of $£ 53$ for 33 days nt 0 per cent.?$33 \div 3=11 ; 53 \times 11=583 ; 5.83 \mathrm{~s} .=5 \mathrm{~s} .10 \mathrm{~d} . ;$ rejecting ld, wo luve 5s. 9d. Aus.

What is the interest of $£ 87$ for 98 days at 6 per cent.? ITere the days cannot be divided by 3 without remainder, but the principal can. $87 \div 3=29 ; 98 \times 29=2842 ; 28.42 \mathrm{~s}$. $=28 \mathrm{~s} .5 \mathrm{~d} . ;$ rejecting 1 d . for erery 6s., i. e., 43 d . for 28 s .5 d ., we have 28 s . $0 \frac{1}{4} \mathrm{~d} .=118 \mathrm{~s} .0 \frac{1}{d}$. Ans.

What is tho interest of $\mathbf{£ 1 1 3}$ for 73 days at 6 per ennt.? Ifere neillice princifal nor laga can lo divided by 3 without remainder: eo wo muat be content with dividing their proluct hy 3. $113 \times 73=8240 ; 8249 \div 3=27498: 27.413$ द4


Fise per cent is a littlo mora dilfeult. To dind neceret at - jeer eent.: Mulliply the principal hy the dings and divilo by 3. as in the preceling rule; cut off ono figure, and comsider tho others as expressing pence ; raject ld, for overy fis., no before

What is the interust of $\mathrm{C81}$ for 68 days at 5 per comt.?$63+3 \mathrm{~mm} 21 ; 8: \times 21-1701 ;$ cutting off lice right hand figure, and comidering the result pence, this liceomes 170.1d.;
 2f1. - 18s. 11 子4. Ans.

What is the interes: of $\mathcal{E 1 1 7}$ for 148 days at 6 per cent.? $117+3-39 ; 148 \times 32-5772 ; 677.2 \mathrm{~d} . \mathrm{m}$ 48s. 1 da. ; 48s. 14d. - BL. - 47s. 5 dd. ... 22 7n. ijd. Ane.
What in the interest of $\mathcal{E 1 4 9}$ for 04 dinys at 5 per cent.? $110 \times 64-0: 30 ; 0530+3-31 ; 88 ; 317.8 \mathrm{~d} .-26 \mathrm{~m}$

To find intercat for days at any roto per cent.: Multiply tho principal by tho daya and tho product by doubin tho ratio por cent. : divido by three, ent off two figurce, and tako tho others as expressing pence ; reject lid. for orery fis.

Whant is the interest of $\mathfrak{E z 3}$ for 77 dnye nt $2 \frac{1}{3}$ per cent. ? $73 \times 77-5621 ; 6621 \times 5-28105 ; 28105+3-$

What is the interest of $\mathbf{x} 63$ for 33 lays at $4 \frac{1}{3}$ per cent.? $33+3-11 ; 63 \times 11-693 ; 693 \times 9-6237 ; 62.37 \mathrm{~d}$. - 5s. 2fd. ; 5s. 24d. - 1d. - 6s. 14d. Ans.

What is she interest of elly for 34 dags at if per cent.? $110 \times 34-1046$; (hero, twice the me being 3 , it would be nugntory to toth multiply nisidivide ly the enme number;) $10.4 \mathrm{Gd} .-3 \mathrm{~s} .4 \frac{1}{2} \mathrm{~d} . ; 3 \mathrm{~s} .4 \frac{1}{2} \mathrm{~d} .-\frac{1}{8} \mathrm{~d} .-3 \mathrm{~s} .4 \mathrm{~d}$. Ans.
The rationale of these rules involvea a thorough understanding of interest, and can best be taught by the living tencher.

## ADDRESS ON NATURAI HISTORY BY LROF. AGSSSI\%.

The subjoined Lecture of l'rof. Agassiz wo would most earacstly commend to the diligens porusal of all the Teach. ers and others interested in tha cause of education throughout tho Province. We lave long been imprased with the conviction that thero is no branch of study moro interesting or inviting or useful to the young than that of Natural Ilistory in all its compartments, und have laboured to the best of our ability in carrying out this conviction, by imparting a know. ledge of the outlines of Chemistry, Mineralogy, Botany, Zoology, and Geology to the atudunts attending tho Normal School. This we have dona not merely for the purpose of inspiring, if possible, the future teachers of the Provinco with a relish and lovo for such studies, and thereby diffusing the same among the rising generation, but also for the purpose of rendering them all the more expart in carrying out the system of education known by the name of natural or training. Ono of the grand characteristics of this system is to lead the scholari on from the known to thounknown, from the visible to the invisible. Thia can only be done by coming down to a level with the youngest and most olveuso amongat
them, by bormwing illuatrations or pictorial representations fmm oljects nad lhinge nad pursuits with which they aro familiar. The field most prolficie in sheso illuatrations is liast of nature, whirther atumen, plante or nnimala. This fiell the Great Teacher ransarkel, nnid, ifwo would imitnto withauceess dis example ir this reapect, wo mass be prepared to logy a tribuso on the armo; and to do this effectually, we require to atudy theso olijects ecientifirally.

It in not. hoverer, bergilso his leduro reenmmonis tho study of Sintural Ilittory that wo prize it an highly. It in mainly becnuse of the mode of teacling therein aut fortiond Inculented sa npplifabin not ouly in one, biti to all branclics of learning. That mode in all its essentinl features, exnetly necotda willz our viewn, and juat becnuso it approximates most closely to the nature of thu beinga erlucated, po in it in our humble efprehenaion tho nenrest to perfectioti. I'rofessor Agnstis, prehnpes now tho grenteat of living maturalials, and who glories in lis voention as a tencher of youth, has diacorered what, in our opinion, ouglut to conelitate the grand nim and end of all edueation, viz., tho oxpransion and devel opment of anind by crerg legitimato mennas. This in to bo effected only in ono miny, vir., by making provision lor all the faculita and anensibititica nod energien of tho mind being vigoronsly exercised,-cexcreised not by wurde or signs bue by llings or realities.
"I woh to awnken a conviction that thin knowleilare of nature, in our daye, lies at tho very foumdation of the pmoprrity of simies; that the ntuly of itio piliecomena of nature is one of tho most eflicient tneang for ite ile celopment of ibe haman faculeces, and that, out theso accounte, is in lughios unfortant that that bramels of education elould bo introluced into our cellools as mon as posiblo.

To asisest jua lietr umportant hie study of nature is to the community at linege, I merd maly alluilo to the manner in which, in mo. dern imese, man hins learued to contiol the forces of andure, and to work out the masierial which our carth produces. The imprortanco of that knowledfa to thu welfara of man ia ovnry whero mantifated to us; and I call refyre to no buller evilenco to provo that thera is handly any other training better fitted toderrlop the highrsif faculfire of mang, than hy allading to chat venerablo old man, Humboldt,
 knowledpe in unr day, who has nequired that position, and who has becono the onject of reverubee throughout the world aerely by his devotion in the atuly of nature.

If it be true thant a knowledje of nature is an important for the welfare of Sintes, and for the iraining of men to ruech thagh pontions nemang their fellown, by the development of their highosi baciltes. how desiratis tbat such stuly shoulit forma part of all empurationi and I trust that the time when it will be introduced into our anthonls will only be ao far remosed as is neresenty for the preparation of teactireri capable of impatting that inatruction in tho tuust elenentary form.

The only difficulty was to find trachers repual to the task; for In hin matumation, tho elementary instruction was the most difficult.

It mas atill a mibiaken vine with enany, ilatat a toacher in almaye sufficipuly prepared to impart the firat olementary instruction to thure entrusted to his care. Nothing conlh be farther from the truth; and hu belcevad that in entrusting tho education of the young to incouppesant teachurs. the opportunity was frequently lost of unfolling the highont capacities of thu pupils, by not attemilng at once so their manta. A iencher ehould almays lat far in adrnace of thoee bo inseructs; and thens was nothines moru pinnful thin for a seacher to feel that he uanat represe, if possible, thace cularra sing guessiong which the pupils unay wish to ask, but which may be beyond his reach.

Hu conesived that nothing but tho inexhaust ble thirst for knowledgo which is inparted in human nature, ensbles chaldren to sustain their interest in atods, when the clemente are imparted to them in the manuer they aro. Could anything bo conceired loas allractive than the learning of those twenty-four signs which ano called lettera, and to combino them into ayllabler, nath then moto ronds, and all mught in the most mechanical and hummifum was, as if there was no sensu in it! And yet, livere in a doeptenwo in it and there is, in those very letters, materials for tho most ateractivo and instructive information, ifit were only in the head of the teacher when ho has to impart it. Jet him show his young pupils how
men have loamel to write their thonghes in worla; ham the art of writing was inventel; in what way it was dene in the beginning; bow it has been shortoned in its operatione, which am now mora. pid that the writer followa tho worls of tho spaker with ao greas certainty as it he raw ibern almads written, and hal only to ropy them: and then the child will heg eager to omulate that, nonl will tre really to arall hmeelf of the milrantazee which a posecection of tho art will give him orer those who have it nol
Bat then, I say in onder to oreatn thie intemest in the child, it in not sufficient that ho bo tauzht mechanically, that such a fizum is A. and that IB, and C, anil so on, but he lo io bo shomen how men came to writo tha letters in that wary, and thyt tho jottera ame only arllablea to rxprese thoughte, and lifit the catlict and simplett ways of representing liesen thoughts was hy showing elliects na thry are, I have been a tencher sinfe I wav fifiren yeare of agn, anil In•n a leacher now, nnil I hope 1 ghall be a tracher all ing lifo. I do love to teach, and there is nothing eo plrasant to mo as to deyelop tho

 which aro better taught withoml lnoke than rith thom ; and thero are some cases altraly so olvinus that I woniter why it in that irachera always resari to books when thoy would loach momo now liranch in their melocole.
When wo teach mule, wa do not leam it hy mic, wo do not commit it to mennory, but motaka an fnstrument anil learn to to play upon it. When wo woulid elinile natural history, inghast of trake let un tako aperimena-stonce, minerala, crystala when wo would stuily plania, let us go to tio planes thomedres, and not to the lxokn deseriling thom. When wo woald stuly animals, let us obsecrve animals; and when wo woull stuily gecorraphs, lot us not
 into the fielles, and look over tho hills and rallyys, tho inkes and rivers, null learn that a knowlelgo of thn eqrith mentiss in knowing what mountaine and hilis thero are, what rireres fone, what are sho accumulations of malor, anid the expanen oflanicl. And then, lave ink shown thein that lanil, let un thow them a representation of what they know thal they muay comparie it wilh what they havo buforo thom, and sell them that that is the way in which tho thing that they haro soen may be ropresentril, and then tho mapi, will have a meaning for them. Then you can go to mapa and hooks but not befuro jou have given thern somo hinta as to what theso thinge snoan, and what onsf, wost, notth anil eavilharo; not merely by reprusuntiug them by tho lettera E. W., N. ands upon a mpuaro piece of paper, with all morts of dots upon il, ono reproventing Spain, the othor Erance, tho nthur Einglanil, tho other tho United Siaten, which in their catimation haro about tho sixe of tho paper on which they have learned it.
I well rememiar that when I was a cencher at Noufchntel, I objected to this moin or inseling exarraphy in our achools. I was satisfied thas is could bo dono otherwiso, and I anked that I might hanve n clase of the youngest clutileen, who wern admited to tho school, and leach them in anothor way. Thin Borrl of Eidurstion would not grant me leare, and I resorted to another amans I took my own chililern, my olidest, a lroy of axi, my girle, childrin ol four and a hall and cwo nad a lialf geare, one liandly capsblo of wisking. and invited the chilldren of my neighbours. Some came upon tho arms of cheir mothera, otbers wuro atilo in walk by themselves. I took these young children upon a hill nhavo thin city, and thero showed thew the magenificent erescent of the Alpe atanting bofore them, their poakn preroing the cloude, nod told them ow far a way they were, shen pointed to the hills between thero, ant the lako at our feet; and when they hud becomu pery familiar with all there. and enjoyed the leautufal scenery, I tonk from ny portfolio a raised map. in which the matural festures of the country aro allempted io bo untated, in paste-boand, and turning them away from the scens, 1 showed them uverythugy represented on a small seale, and they reconnized the very peaks they saw linfore thom; they ksw then lake whell was apresiding beforu thom as a blue opor upon that map; and ev they learnes the ueaning of mapy, nuid atterwands could ap. precate tho map which was not oven raised, but only with black and white narks represonting the sumu features. From that day; geograply becanic no longer a dry study, but a desirable part of their chluention.
I havu undertaken to aldress you upon the desirableness of in. troducing tha study of nasural history intnour sechools, and of uing chat inetruction as a means of duvelopmen the facultios of ehhildren and leading them to a knowledge of the Creator. Nitural Itimory, 1 have slready said, should be tuught from ohjecte nod not from books, and you sev at onen that this requites tevelhers who know shase oljecta; not only teachure who cunn read and kay whether a lesson has been commited fathfully to memory, but they mut know these ohjects bufore thuy can teach them, and they should bring these objects uso the school, and not only exhibit them to the seholars, but placo them in the hands of each scholar.

Some years ago 1 was requested hy the Secretary of the Board of

Piblucation to givo nome lectures on Niatural liestory to the teachere in cifferent parts of the Sisir, in thoro interrating mectinge which aro known ae Tracher's Institusea I had heen askellog gire momo instructions "pon inserets, that the texchers mishs to preparred in al$^{\prime}$.. wh what ineecte aro injurioue to regetation and what aro not, and te the means of imparing that information to all.
1 thought the beps way of answering the call mac, 10 place at once an oliject ol this kind into their own hanhs, fre 1 knew that no vero bal inasruclion conlil tre transformol into actual knowledga; tlint whatever 1 might any mothld bo carried nway as worlh, and not an the imprasion of thing!-and what wan neeled was the impprestion of thinges Therefora 1 went out miorlly belore the exetcisea coms menced, and collectecl enveral hundrell praspioppere anil brought them into the romm, and having firt etherisel thrm, कo that they ahould not jump atioul. I put ono of thete into tho hands ef eath teacher. fiestratell univermil Inughter. II apprared rudiculous to all. Lint, 1 have than atisfaclion of aying tbat the oxamimation of these oljects hed not heen cartiod on long, hefore every ona becatme interested, and inserad of looking at me, thery lookel at the thing.

Al fires, 1 pninted to thinge which could not be easily eren. They anil, - There lhings ate tro mmall to he peren' I repliest. llonk nanin. and learn to look. for I can aso things ten times amanlor than thoee in which I have called jour attention; it is only want of practice that retulers gou unable to seo them.' Tho power of tho liuman aro ia very great, and it ia only the want of practice whiala arts auch narior limits to its frower.
llaring exaunided ono object, ankn anothor which hasanmo similarity to it, and anals zi its jarte, and point out tho differences botreen that and tho olject rxaminell trefore, and zoll are at oner upon that track, eo impottant in all rducation, which consings in corrparison. It is by comparison that wo aceerain tho lilforences which rxiat betwren thinga; it is by comparian that we accursain the gencral sealures of thinge; and it is hy comparimon that we reach peneral pirapositions. In fact, comparisons aro at tho botiona of all, shilosophy, nid without comparizone we can never peneralize: withuus comparizons wo nover gol beyond the knowledgo of iolated dixennected faces.
Nuw, do you not eco what importance thero must be in euch train. ing - how it will a waken the faculties and develop them $\rightarrow$ how it will bo suggestive of further inquirica anas further eompatisons \% Anil as aoon as and has begun that sort of atuily thero is no longer a lim. it to it. In this way we can becomo better asquaintel with ourselrop, Ye can more fully uadornane our own naturo and our own rola. tions to tho world at larga. Wio ran learn how wo aro related to the whele animal kingloni, if re once bugia that comparizon. At firat it might ecern dififulte to find any recemblanee belweon man anil a quadruped, or brewera tho quadrupell and birma, or hetwern bieds and repilien, or between reptiles and fakhes; and if wo woro to attumpt to coarpare a fieh with man, tho very illea would zeutn prepostrrous; and Yel. tho two a ro constructed upon the asmu plan; tho eame olements of atruature which we may trace in tho figh are presented aynin in man, only in a more elevaiced combination ; and it sany be ahown, in the kingilires way, that there in a plain gradation lealing up from the fish to the nollie stature of man And these comparisons are lise bees moans of developing all our faculties, becanere they call out not only the powers of obervation, but also the alility of the miad to peneralize and at the manu timu dincriminate. They call out, in fact, all those abilitices which dintinguish ono man from another, which give men power over othor men-aluo ability of dixcrininnting judiciously nnd of oombinink properly - the ability of azerraining the differencers ns well as tho resumblances. The one conatitutes hio art uf nberving; the other constitutes the art of phitouphy, the art of hinking.

The ditilicultart of thinking can be better fostered by this method, than in any other way. Whien we atudy logio, or mental phllowo. phy; in the text. Wooky, which wo comanit to murmory, it is not tho mind whech we cultuate, it is memory alone. The mind may come in, but if it down it is only in an acceasory way. But if wo learn so think by unfolding thoughts ourselves, from an examination of oljezta brouphe bufore un, then we actually trarn to think, and 10 ${ }^{n}$ Ifly this ability to think to the realitics of life.
It is only by the ability of ohserving for ourselves that we can free ourselvas froin the burthen of nuthority. As long as we have not learned to seltle questions for ourselven, we go by nothority, or we lake the opinion of our neiglibour:- -that is, we remain toots in his handat if he choosce to use un up in that way, or we declare our inability to bave an opinion of our own. And how shall we form an opinion of our own otherwise than by exnaining the facte in the case? And where can wo learn to examine facts more seadily than by taking at first those facts which are forover unchangeable, those facts over which man, with all his pride esn have no control? Jlan cannot cause the zun to move in space, or change the relations of the metnbers of the solar system to each other, or naike tho peed to aprout out of its scason, or make the oak produce apples. Man must take the phenomena of nature as thay are ; and to learaing
this he learna truli anol tumuility. Ho learng that what exiets in nature in true, and to ralue truth, and that ha mush bof to what in, -to what he rannol chatige in the natum of things But, at the samn time, ho fratne haw to aserpiain what chungs are; and how liey came to ba: and whila he learna that, he acepuires a pmeer whirh ran nover be Irseenel. hat which in over increasing in proportina ac lisis opportunits for further obererration ie ineressed.

It is only thy the levelopment nfall his facalicen that we can maka man what he may lm; it in only in giving to his mind tho food whinh will nourioh all his facullifs, that wo accomplith this end. If we only cultirate the imngination, the tate, tha memory, tho culturn of the enges in neglested, the ability of obverving in neglertort, and all thom atillitirs which man may acpuira bry the cullure of his petlese, by the aft ol oluerving, are Ioft nombaincil.
The remenn why wo so fempentiy neo sholare whodo not do well in molool in berauso their alifitica lio in another direction from that which suite others; it in hecanso one areat olement is len out nf tho syitem of crlucation-that which appeals to the ronses, follhe power if ntmorration - shat which muiresactivity and manipulation ; and while only the imakinntive faculties and the memory aro cultivanon. which will auit nomn minnla parfertly, and bo tho very fons ling want, othere are leiz zlarving for the want of the food which their nature rciluires.

1. Any; therefire, li,at in our age. when the importance of tho atmily of Natural llingory in mo manifast, by ita mary ap lications to the wanta of man, I woild adil that ona means of cultupo to our ajasten of cellucalion, and ald it nesoon as iti in positho to celucate the tearloera wha may he rapabie of imparting the information: and that rnn bindonernaly by following the amme wien mothol which has tron followet in the introuluction of avery nilier bpanch llow wan is when Phreival Ginopeaplyy was introduced into our Sechoola? Bine man rent about froun ecliool to echool to give ineliuction in that branch.
Ho hand his pupits, and thono pupila are now tonchere. Do the eome thing now. Select a fow men who havo tho aptitudo and tho prartical akill to teach, and let thent go forth, to tha Trachorm' In. atitules at first, and then into the echoole Loet thom show what can bo laupht, and very poon tho information vill bo opread abroad, the ability to toach will ho amuirch, and in a fow years wo may havo a sjutem of eduestion embracing that inportant branch that is wanting now, and wheh I believe to be really onn of then mosi amportant addations which can be mado to anj ajotem of oducation.
III...OOFFICIAL NOTICES.

Nohmal. Sohoot..-Tha Summer Term of his Inatilistion will closo on Thuraling. the 29th of thin month. The private examinationa will inkn place on the 22nd, 23 rd , and 24th, and the public on Wedneadny, thu 28 thi and Thuraduy, the 25 th. On tho frat of theno days a apecimen of practical exercisea in the Model Schonia will bo given:--on tho eccond a full reviow will bo taken of the Training Systern, along with the uxunl cloving services.

The next, or Winter 'Term, will commence, at usual, on the second Wedneadny of November, that boing tho ninth day of the monti.

Dr. Forreater requenta that all applications for Normal Trnined Teachera be forwnrded to him before tho end of this month.

Tfacilens' Institotrs.-Tho Superintendent of Educa. tion will hold 'Tearhers' Institutes it the following places and dutes:-At Ialifinx on Saturiay, tha 8th October, for the Teachers within the bounds of the Board of tho City of Indifax and of Weatron Hatifax; at Kentville on Saturday, the 15ith do.; at Windsor on Saturdny, the 22nd do. ; at Amherst on Saturday, the 29th; and as Parrsboro' on Saturdny, the 5th Norember. It is earnestly solicited that all the Teacherd wilhin the bounds of these Boards attend theso meetings. The Clerks of the different lloards will give due intimation of the hour and place of meeting.

As the following querice ate of general inimrest, we havo thoughit fit ro pulifili hiem, nad toeend our answers through tho Journal:-

Pannsnoro', 6th Seplember, 1858.
The Rirs. Dr. Morrsiler, -
Dzar Siar-

1. Atr. MeTallan han cloeml his Grammar Schinol here, afler iraching three mantha in tha half.gener ending lat No-
 currancy, for the threo months sersice, nud tho difficulty if, that the aclool was not so fill an tho School Act proinia out an nemephry. Tho tault, hownere, was not hik, Ila lind a much larger subsetiption than tho Aet requires, (all pnid, I lieliere.) smid intight failhifulls tha periad dinimel for, and lind good renson to expeel a full nitendaners of scholara. Thin numbice in nilendance was onls len (10) instend of eventy (20), and tho arerage daily nitendance 7 or 8-all at the lighere bmaches. However, the Commiskioners nre willing that he alonild linve the nllowntes: but would like your kanction, under the rircumatancea, before drating for if. Tho Commiasionera are minatanily collid upon to orerlook thanatriet letter of tho lne when diviting the moniea, otherwise much of it would remnin in tha 'Trensury; to the injury of achooln.
2. Cin the propen: : on for the Grammar Schoul (if allowed) he dmwn before the terinination of the curromitinlf.gear 1si Ninvember noxi?
3. It he (Mr. McLedlan) alonuin friil in promering the Grammar School allownece, would there be niy impropriets in piving him n pharo of tho Common School allownico in November next?
lour reply to tho aboro queries in required on nerount of objection raised by somo partics. Dleaso let mo liavo it at jour carlicat convenience.
lours reppectully.
'F. D. Dictson.
Asswims.
Query lat. It in plain from the atntenent mado that Mr. Mcletllan has no ligal sille to tha Grnmmar School allow. aneo for the time apecified, and that, if he obtain it, it munt lio by a relaxation of tho lave on tho point. This relaxntion none bat the Government or tho Iergialature can make:but it sppenta to me that the case in just one in which cither tuipht, with all propriety, interfere. No hinme ann bo nttilhated to Mr. Mchellun, who was, 1 beliere, in nerery reapect. comprient to diactiargo the dutien of the stavation. He commenced the rehool in good faili, nad when, at tho end of the gunexer. he found he could not muster tho leignt number, ho resigned. Weron fair representation of tho cate made ly the Comminnioners to the I'rovincial Secretary, 1 have lillle doulte bus it would receivo a favourable comaiderntion.
Query \#mi. Tho linancin! Secretary generally ordera the money to bo paid when enrued, provided ho is antinfied that the party or partiea have a legal rinim to the anme.

Query 3ut. Tho monoy voted ly tho leegishatures to the county, or eection of commly, oter which the llaurd of Schoul Comminsioners many preside, is entirely under rheir contrul, and as their dipjosal, for the emolument of the l'eachers that may be labouring willin their bounde. Is might be well, were thero some more specific principles laid down to rigulato the rarious lionrls in the diatribution of there funds. But, even if there nere, the loards would require to the inrested rith certain diferctionary powers to enable them to aulapt themselves to the circumstances that must necessarily, in educutional muters, arine. We uppreliend the case under consileration to be ono in point; nnil would hold it to be no amall harrothip to Mr McLeling, in the event of his not recelving a Girammar School allowance for the time apecified, were ihe hands of the Commiationers so tied up. that they could not tall back on tho Common selool Fubid placed at their dixposal, and grant out of that fund tho proportion of a first class Common School 'rencher for the three monilis Mr Mel.ellaa was engaged teaching.

## iv--EDUCATIONAL INTELLIGENCE.

## colonial.

## NOTA.scotid.

On tha 26 h and 27 ith ult the Superintendent of Education risited tha Dialtict of Linetern Ilanta, ndidreasdil pinblio meelings on tho mbliect of lidumation at Lilmsidalo, Goro and Kennetconk, anil held an Inalituto at tho last-mentioned planeo for the benefle of tha Teachers.

Ilis Eixcellenoy Sir lionston Stowart, Ailmiral, \&o., and lealy Siowart, pinid a visit in tho Normal School on 24 hh ull., and to tho simelel Schools on 2ith, nul exprearel them. actres highly gratifed with what thing hand seen noll heard.

## K:W untisswick

Wo obaerre that tho Chief Superimtentent of Eiducestion is proseculing his vinintiomsthroughow hin Provinco with indinfuligahle zeal, milireasing public meelinga on the aulyject of liducntion and holding 'Trachern' inatitutes, trhich nro numemualy alteniled. I is earnealy hoped that the Doaril of Eiducision t this ['rovines will crelong de something offective towarila tho remodalting and thorough equipment of a Niormal School listablishinent. Ihis soems to bo tho main thing now nuranting 10 completo tho eduentional machinery of New lBramamich.

## TRIKOE RDWARD ISLAS:T.

Tho lloard of Education in this beaut ful Iminad is ovidenily beatirring itaelf. We observe in thas Newspapora of tho Colony an nilvertisement for a llend ninster to the Normil School, who must bo qualifed to conduct that Inatitution nccorilling to tho 'ITrining System ns foumbed by Drvid Stowe, Esti., Glangow. This is noble. The inlabitennse of tho laland havo alrenily nttempted to carry out this system, but a serices of untown-d circumatances pruventod thoin from necomplishing their design. And yet thoy aro not to bo bafleal or driven back from lhuir original position. T'ling sceril determined to persururo notwithatanding all past diffcultics nnid dianppointmenta. Laet fiem hold on, nal thoro is not the alindow of $n$ double na to their ultimnte auccesa.They nre niready in advance of the whole of British Niorth Anserien in their aupport of Education, the purely free aystem laving now been in operntion for a number of yrara.All that they now require is the elevation of that quality of their h. ention, and this enn only be efferted thromph tho medium of a thoroughly equipped Normal School. Nothing ahould be begrudged here. If were the very height of folly, nfter all that hus berin done, to display anyiling like a parsinconious apirit here. Thas Normal School of any country in, and ought to be, the exponent of its Educutional state.We hope to seo this erte long in tho Island.

## OUTLINE OE TIE PRUSSIAN SYSMEM OF EDUCATION.

The system of Public Instruction, in Mrussin, cenbraces threo degrees, provided for in chres clanes of inatitutionn. We will confini our attention th the firtt of these, namely, Primary Instruction, which is desigued for the mass of the people.

1'russia is divided into en provinces. Ench province is dividrd into regencies, and these are divided into circles, which are ngain subdivided into parishes. The chief authority in the departmemt of Public Instruction, is the Minister, who also has charge of recleniastical and medical affairs. He is assisted by a council which meets usually twice
a week for the tmaraction of matinese. Finch proriner han ita provistrol and rouncil, linving functions in ilise province similar to those of the ministerial council in tho kingloth at large. Eisch repency las aleo ita president and council. This latt named committecexamincannd nppoints all teachoera of primary eclogila trithin the regency, zuperintemula the echoonk, and colicete the sehool fees. Than nexi nuthurity is the inapgelor of a circle. who has charge of ertersi pariches, and in usunily ancletgyman while the councillora nre inymen.
 Which is the immediato amiority. Jiach parnsh musb have its sehool and ila echool commilice. Tlime, there in a regisInr serica of ambloritiea from the teacher up to the minialer of elate, and overy puit of primary inasruction in entirely wilhin the control of an impulae from then renerpl gnverrimene, antl takes ita direction accorting to the wint of the highest mulhoritica. Wilh anch a ayalem, it is ohvious llint the proviaions of any law may be sucecesfully enfurced.
The caritinal provisiuns of the esticul syelem of l'rusnia, aro:

A'irat, That all chiliten lietmen tho nges of eeven and fonricen years hall go regularly to pehool. 'Thin in enfore ecd ly the setool commintec, whe are reguired to enforco the penallies of the law.

Stcond, That enrli parinh stinil, in peneral, havo an elementary echool. Where lise inhahitanta are of diferent religious persunsiome, provision is mala cillier for separato arhoolf, or for tha religioun instruction of tho children by lhecir nimp pastora.

Third, The edacation of Ieachers in acminarien alapled so the grado of hastruction to which they intenil dovoting themedres. Their exemption from active military acrice required of other citizelis. A pisvision for their support dur. ing their serm of atudy. A prefurence given to liem over tenchera not eimilarly educated. l'rovision for the removal at tha fincompetent or immoral. A provision for tho support of decayed tenchers.

Fourth, Thic nuthorities which regulato tho sechoole, and refler them a branch of the general government, and The teaclers in fact, its oflicers.

Under this eyatem of organization and administration, the publice achools of l'rusain hava inserenned very rapidly, and have nttained, within the last half century, to a high degere of excellence. to effectual hase it been in arcuring the bles ainge of eduration to all, that in 18:16, in the standing army of $122,89 \%$ inen, only two men were found, who could not both read and writes

Two degrees of primary inatruction, are diasinguished by law; the clementary achonts, and tho hugher achools. The clementary schoole propose the development of the human furculties. through nn inatruction in those common branchers of knowledge which arv indipyensuble to every person, bolit oi town and country. Eivery romplete elementary sehool niccessarily cenbraces the aine following brameles: 1. 1h-ligion -morality bused on the positive trutha of Christinnity; 2. The German tongue, and in tho Polish provinces the ver. nacular langunge ; 3. The eletnente of geometry and general priaciples of draning: 4. Caleulation and applied atibmo. iic: 5. The chementa of phyeice, of genernl hintory and the history of Pruanin: 6. Singing; 7. Writing;-\& Gymmastic exercines; 9. The more simple manaral lathors, and nome instructions in the relative country cocupations. The lurgher sehoola carry on the child until he is capable uf manifenting his inclination for some particalar profexsion.

Tenchers are required to adopt the methods beat necommodated to the matural development of the humas mind. I hem committera are to whith over the methoits of the master, and to nid him by their counsel; never to tolernte a ricious method, nad to report to the higher authorities should their admonitions be neglected. l'areats hatee a right to scrutinize the system of eduention by which their children are taught; and the higher nuthorities are bound to lave their comphints thoroughty investigated. But parents are bound to co-operate with their prisate influence in nid of the public discipline ; nor are they allowed to withdraw a scholar
from ang branch of education tanght in the school na necessary.

An ordinance pasered in 1819 then deseribee tho well guali-
 fil the lutirs of hisestation, the oughe to be religinus, rier, and alite so the high importanen of his profesaini. Ile oughe
 quired lio art of teaching and managing jouth, to ho firm in
 dubes, friendly and prudem in hias relations wil! lie purents of his children, and with his follow ciliserne in goneral; final Ig, lio ought to ing pire all amund him willa a lirely intereal in tho progresa of the arhool, and to render them fariorably inclined to peromd his ont winhea and codentours." In order to securo tho education of alich sehoolmastera, ench defartmens is requiret to rupport a Normal School for the ernining of joung then on aupply tho yearly racancies in the runks of the tenchers of the ilopmrtinent. Whero the namsbera of Catholica and l'rotestants aro nenrly equal, thero is usunlly n Niormul School for ench sech. llint where a vory
 acct, nro oblatined from the Nurmal Schoola binkuging to shat
 menta in the eamo doparimens anomexell (t) an elementary achoul. Normal Schoila for tho aimultancous cilueation of both areta nro allawed when tho pupil teachora can olitain close at hand auitable retigions inalruction. cach in the ductrines of his owil church. Tho Normal Schools are gener. ally estallished in emall sowns, in ouder to preacrva liep pupil tenchera Irom dissipationa, Ioniptations, sud habits nut auited to thrirfulure profespion, without aubjecting them in a monnstic seclusion. Niono nre ndmilled into a Normal Schenl
 an elcmentary primary school; nor can any young nann bo received of the excellence of whose mornl elinfacter there is tho least ground of auapicion. Directurs of Siormal Schools are enjoined to conduct the pupit lunclaces, by sheir own oxperience, to ainple and clear principles, rathor than give them theorica for theirguidance; nnd with this end in riuw, primary achonola are joined to elin Normal Schoola, where tho pupil tenchera are pructised int the art of eneling. Tho course of insiruction lusta threc yeara, hat for thono who neo aulliciensly advanced when they enter not to require tho firet year's inatruction, tho coarac is reduced to one of two yeure. Fonatig men of anod charneter who nro not able to support themeelvid at n Niormal School, are eduented gratuitously, and are obliged nt tho serminution of their conreo to secept tho places nerigned them hy the provincinl consis. surics. The provincial cansinturiea have tho inmadintu aurveillanes of all the Nurmal Scheols in the daferent departments of their reapective provincer, mind the provincial ecclesinsucal nulhorities inuv the especial survuillanco of the religious inatruction of dhair respective secta.
Under thene regulations $n$ large body of men linven been irnined nuld aent fothl, tho fit instructors of tha l'rusuinnt youth. According to the texnmony of Mr Kiny, a dintinguish. ed Lingliah traveller, dio Pruanina tencl:era are agreat body of educated, courteous, refined, moral, nad learned profensorn, Inboring with real enthuainom anoug the pooreat clanaca of their countrymen. They aro whelly devoled to there dutice, proud of their profegaion. united together boy a atrong feeling of brolherhood, nad halding continunl confurences. for the purpoete of dubating all kinds of questions relating to lhe inamagement of their achoole. So highlyare they reapected by the puashata, that if you tempt "Pruscian peranat to tind gaule with the nelhools, ho will tell you how good the school is, and how learned tho teachers art.

## AGRICULTURAL.


I....THEORY OF AGRICULTURE,

A SUlPLIS OF AIR NECESSARE TO THE ROOTS OF PLesNl's.

The main object of the practionl farmer is to raise from the dead carth thos living ghant; and in orter to do this, it has been found necessary in all countries, and in all nges of the art, to brenk up, and more or lest to pulvirise the surface snil. As this is the natural siation for all our cultiruted erops and where they obtain a large portion of the necersary elemental tood requinito for their developmant and maturation certan condations of the sad surface becoma absolutely necessary. Motsture, waruth nal air, in due proportuens, ary indiapurnible both to the roots whichare extended through tho sonl in seardh of mueral food, and to the stem and leaves which appear alove the eurface, one of whose chief functions being the absorption of gnscous matter frotn the surrounding atmosphere. At exeess of mossture in commonly more miarious to plants, than the extremes of beat and air: for when a soil becomes saturated with water for any consuleratile time, air is in preat measure ex. cluded from is pores, and the slow and constant evaporation which th gonge on at the surface, keeps down the temperature to a degree mameal to the heallisy progress of veretation For a soil, tharefore, to be made parnuf, go as to freely admit air, warmath and moisture, with the eapialiliy of any supetifons amount of the Inger freely pervolatug a way, consututes an anxion on whuth all oumperations of ploughmg, tremehng, digiting, drmaing, \& © a aro founded.
boils, it is wril known, vary muth in therechemical compusition ned ine hanneal texturs. The suceess of many crops depends as much upen the later as upon the farmer a and in no care can the matural or arrifiesal consistury of the soil be asfely disregarded. Dloat of the winter wheat in Cannda is raised on summer fallows; lent the opuration of lallowing is often so mperfactly done that a diminished erop of enferior guality is the ineviralilo result. Wheat, it is irue. naturally covels a clowe soil; yet the decpur and nore Throughly it is puiverised, so ns to allow air, warmhla and unoisture Irealy $t 0$ come in contate with the roots of the joung plant, the more freels will it grow, ated the more abunlant will be the produce If, lowever, water should in any considerable quantity staphate, an as partially to exclute air, and by surface evapordtion produce coln, tholeryround draining is essential to the procuring of a profinhe rrap.

That the contact of nir to tho roots of plants was alowas conside ered necesenry, is covilent from the oldest apricultural writers; but the primeiples whs never sofully understood and acted upon, hs it tay heen of fate yrars. The firt and onost arixing instance confiematory of the opinion was the fact of large, full-grown, ornamental 'orest trees having bien killed hy their roots being too deeply corered up with earth when leveling lawns; and planters and parcheturs have long bewn arape ect the injurious elferis of planting as well as sowing too deep. Formerly it was thought that the earihy materials in whels valuable exotic plante were to be plated rould not to too finely sitted and maxed ; whereas experience at lengith showed that the small gartictes of such sots soon run toguther and become a compost mass after hersy raths, thus operating against the eatenston of the young routs. and in great measure excluding the enternal air and mossiure. Among coarser and looser materials, however, a consuderable body of air was found to repose, and the more arthe thites to extend much more luxuriantly than in eloser and denser soils.

The garilener's improved practice is only anothor proof how much a jorous soil and presence of air are neceseary to the roots of plants; and set we offen see the most lasuriant vegetation produ ced hy soila which are npparently very close in pexture; sue has alluvial soils and firtile clays. Both these deseriptions of soils buing compoepil of tho finest atoma, berome exrecilingly close nnil entupact if undisturbed: but when ploughed or otherwise periodically movod, tio stirrell portion altracts as inuch of the qualities of the air as suffiees for the following erop. It is rather remarkablo that while oak thrives best on a clayey subsol, it does not seem to affect rich alluvial laul, owing probably to its closencss of tex lure preventing all access of air to the place of the roots
Aquatic plants, which live entirely submergel, slihough ilefoniad from external air, receive as mueh as they nend from the surrounding vater, which aiwaja contains a notable messure, besidus nutritive bodics in solution, which form the pabulum of planes, whether aquatio or terrestrial.

Anothur tribe of piants are attached to tho earid so slighty that Hecir system of roots is nothing compared with the balky huads sustained; aud as these planle are mostly Cound on rocks, or on the driest tracte of country; it is uvident that the greategt portion of their nutument is drawn from then ntmosplers Another tribe of acurious nod larnutiful flowering plants is called lipiphytes; because they attach thomselves to tho stems and branches of trees, not to sustain themselves by extractiong their juices, but to be supported in tho deep shado and moist nir of thick tropical woots. Some af thess are called air piants, and grow as well in a baskot without earth, suspented in a warm, dainp, shasly placon, as if they werv in their nalive habitat

Thus it is npparent that atmospheric air is cesentially necesuary to plants, and as much so to thas roots, as to the stem and toliage; and it is this fact, as alreadly obscrved, that justifies all tho means of cultivation which thu farmerand gavdener havo recourso to with a viaw of rendering the staple of tha son! more losso and consequently more pormeable to all atmospheric influences.
There is no circumetance, howaver, which deserves to be noticed along with these general remarks; it is tinis, that all seeds require to be closely embedded in the soit, that is, they shonld be in close contact with the mould on all sules; and, that this shoold be completuly aecured, some secels in particular soils require a meelianical pressure of the earib upon them, as wheat for instance. Now, we have only to consider that as the soil has been previously propared, and more or less reduced to the finest practicable statu, a cotwiderable volume of air is incorporated therewith, and that this nir, according to its temperaturo and the monsture of the soil, facilitates the germination of the seed, a nd continues to assist the development of the plant. To obtain this alose embedding of the seed on light, porous, soils, it is the practice to press it in, a practice which is found of service in wheat, peds, beans, and almost all small seeds; but which vould be of no avall without the previous disruption and auration of the soil.

All theso matters premised, it only remans to conclude with a qelleral declaration thatin all our practices and means' emplored for the ameloration of the lami, everything that ran be added or taken asay, every opergtion perforned, and every implement used in the culture, should all lave for then ultimate object, either directly or inderectly, the breaking up of the compact and impervious surface, so that constant and copions supplies of nir may bo Freely admitted to the roots of plants.-Canadian Agriculturist.

## 11.-PRACTICE OF AGRICULTURE.

## -AUTUMNAL FARM WORK.

In a former article wo mentioned twe items of farm labor that ojght to be attended to in the attumm, viz : seedong lantls to groxs. and preparing rough lands for cultirution. The next item to which we find pleasure in calling attention, and which, strictly; ought to precede all others, is that of
dhaining.
And we beg of the reader not to come to the sudden conclusion that we make a hobby of this subject. but to give it shought, nb. servation, and such careful investigation as bis opportunities will permit. All of us have been tau;ht to believe that manure is the great essential in farmung; it is so; but horough draining follows close upon it in importance, and we are convinced that we cannot do any tarmer a better service than by pressing upon bim a sense of its great value. Julge Firnscit's new vork on farm Drainage is fiuding its way into the faru-bouses in every direction, and will
be the means of adding large profits to the agricultural productions of N'ew Einglantl.

It is not our intention now to piro the details of the operation, as that has been pretty thorouphly done in thesocolumbis,-hut we desire to call the attention of our readers to the suliject. and ask them to consider it well. In the meantime, twe nivise every farmer to get Frenclis Farm Drainage. or Waring's Elements of Agriculture, or both, anit make them a stoly as they proseress in the practikal operation of tho work. From tho lattur wurk, wa give below some of the

## ADVANTAGES OFEUNDER-DRAINING.

1. It preventa drouth.
2. It furuishes an increased aupply of atmoypheric fertilizers.
3. It warms the lower portions of the moil.
4. It hastens the decomposition of roots and ofher organic matter.
5. It accelurates tho disintegration of the mineral mattors in the soil.
6. It cnuses a more oven distribution of nutritious matters ainong those parts of the soil traversell by roots.
7. It improves they mechanical fexture of the soil.
8. It eauses the poisonous excrementitious matter of plants to be carrich out of reach of their roots.
9. It prevents grasses from running out.
10. It enables us to decpon the surface soil-by removing excoss of watur.
11. It renders soils earlier in the spring.

12 It prevents the throwing out of grain in winter.
13. It allows un to work sooner after raine.
14. It keeps off the elfects of cold weathar longer in tho fall.
15. It privents the formation of acelic [that is. sonr,-vinegar contains one or iwo ounces in a pound of acetic ncill.-Fd.] and o:her acids, which induce the prowth of sorrel and similar weeds.
16. It hastens iles decay of vegotable matter, and tho finer comminution of the earthy parts of the soil.
17. It prevents in a prast measure, the evaporation of water, and the consequent abstraction of heat from the soll.
18. It admits fresh quantities of water from rains, \&se, which aro always more or less imbued with the fertilizing gases of the atmos. phere, to biduposited amonet the absorbent parts of soil, and given up to the ne essities of plants.
19. It provents tho formation of so hard a erust on the surfaco of the soil as is customary on heavy lands.

We will add anoller item to make out tho score, and ono of no less consequence than the most inportant he has named.
20. It provents, in a great measure, grass and winter grains frc teing tointer-killed.

In Mlay last, upon an examination of their fields, farmers were astonished at the amount of their lands which thoy found bare, in consequence of the winter-killing of grass and grain. We aro compelled to confess in frimess, that this destruction was caused by the coating of iee whilh covered the surface during most of tho winter and a portion of March and April. Eut the question arises, "If the land lasd heen thomoughly under drained, would tho ice have remainch upon it so lot:g, and clung to it, like the shirt of Nessus, until the breath of life was gone ?" We linink not-and look upon this as one of the chief merits of under-llaining. But our story is getting long, for a single topic, and we must leave it to say a word upon ihe subject of

## tor dressing grass laning.

The annual top drepsing of grass lanly, or even doing it once in two years, will save a heavy item of cost in the matter of plowing and re seeding. Quite moist lands may be kept in grass, yiehling a ton or a ton and a half per acre, for fifty years in succession, if they are frequently top dressed, and seed sometimes seattered with it, or if the grass is allowed to go to seed occasionally before it is cut.

It is an excellent time to apply compostod manure as a topdressing immediately after the liay is carried from the fich, as the young prass will grow up and averer it in a few diys. It then supplies the roots with new food, and gives them a vigerous setting for annother crop.
If this work is not already done, it should be, before the grass ceases to grow, mo that the autumal rains shall moisten the manure and carry te furtilizing properties among the roots.
There are some other items whieh we should be glad to present, but our space tor to day is exhausted.-N. E. Furmer-

## PAPER ON SHEEP HUSBANDRY.

ay john foott, mresident past mermaje agmicultural socikty, canaba.
Mr Presinent and Genthrmans,-l cannot help regretting that jou have called on me to read an essay on Sheep Husband-
ry at this busy season of the year, for I havo not been able to devolo sufficient time nold attention to the subject, to do it anything like justice. I know shen subject is of great importance to us as Farmera, as rell as to the country at large, and fear that the paper which will be reall to you will be bitt a poor attempt. How. ever, when any task is assigned to mo, you know I am not the person to llinels from it. I haso oudeavored to nut a for hasty thoughts together, which I hope you will reccive in all charity. The subject is too oxtensivo to has rondensed into a singlo cesay. I shall, thernfore, only introluce it, amd confine my remarks to tho Lreeding of Sheep; and ifI elall bo apared to seo tho nppronching winter, and it should bo your wish, the subject may be furiher gono into, taking np auch points as tho feeding, housing, and genaral management of shep, together with some rumarks on tho bringing to market.

From tho enrlieat ages of the mork, the kecping of sheen has been a very intorestind and proditablo occupation to mankind. Abel was a keepur of sheep, and through eucceeding generations the tending of sherep formed the employnent of a large portion of the population of the earth. 'Thus, wo find in tho days of Abrabam and Lot that their locks and herds became so numerous that tho land was not atble to hear them; the Patriarehs, those especial frvorites of Heaven, were all engaged in this noble and honorable employment, and it was not only the men that wort engaged in it, but we find that the women also assigted in temeng the llocks. We read in sacered history, that when Jacob went lown to Pandanaram, he met kachel at the well, watering her father's sheep, for sho kept them. David was laken from tha shoep cots and anointed by the prophet to be King of Iarael; and if you will read the Psalus you will fud that the most sublian and expressive of them have direct reference to pastoral life.

It strikes mo that those shephords in ancient times wore in great favor with (;od, for we find at the commencument of the Christian era, when the grealest evont that ever took plate in the world was about to happen, that shopherds were the first to be mado auquainted with it; while keeping their flocks by night tho glory of the hord shona upon them.

As the world advances in civilization, so the keeping of sheep fectas to advance in importance, it is only since the evtablis' ment of tho Australian Colonies, that any prost amount of wool has been imported into Europe-that country sends an immonse quantity to tho British market.

Before the finding of gold in Australia, wool was its most valuablu export. The wool for the finer fabrics of eloth used to bo obtained from Germany, aud other countries of Europe. 'Iho Americans send considerable quantities of wool to the English markets. This branch of farming is increasing very mats in the south of the Anserican continent, the Wextern States, and Texas. $A$ person writing frow tha latter place, pives a glowing aucount of his succerss in sherep farmang. Hu seys: "I have now about five thousand sheem and all fine stock. Liave realized over iwentyfive frar cent prufit, per anmum, on the investment since 1 have been bees which will do for bad times.-Flocks now in finer and healhier cuthdtion than ever. My good lack has lasted threo years without intermisuion. If I can go on for three yeart more wilh the same success you'll hear the bells all the way to Boston."

Mr Cairl, spraking of Prairie farming in tho West, anys: "I drove to the furm of Mr Connell; hu is a practical man, who has all his life been engaged in firming. [le lent the old country in 1811; farmed in a sanall way in the State of New York, where he first setled, and muved thence to llinoiv, suventeren years ago. took his sunall flock of merinos with him. They have been remarkably bealthy; increased one thirdevery year, and his tlock now numbers 26.000 . His leeces averane four to five pounds each, and the wool sells for 1 s 6d to 1 s 8 l pur lb . The sheep are sent to the prairies in April; 1,200 ate placed in charge of olle shempherd, who tends thom and supplies then with salt; they need no othor food for six months. He brings thein to has eniclosed ground in vinter, and gives them hay when they need it, and a litile sorn. Ilis flocks lave never satlereal from any epidemic, but have been frese from discase. His original How increaved one fourth in weight and size after bsing brought from Nuw York to this better soil. He prefers the Merino to the South Down for thit eltmate and sonl, and has found trom trinl that the Mermos yrelled an mueh mutton, and lar better wool. He imports pure Merino Rams trom Germany and Spain to improve his flocks."

It will be perecivel from those accounts, that Sheep IIasbandry is heconing of greater inportance, and keeping pased with the other improvements that aregoing on in the world. It is mot many years situce in those countries that have been last montioned not a sbeep was to be fuund.

Sheep are kept in some parts of the world to an extent that some people have but litte idea of. When Prince liaterhazy was in England, some years ago, ho paid a visit to the late liarl of Leicester, who was one of the largest farasers and stock-breeders in

Einglanel. The Earl showed him a thousand eronk in ono flock, nold anked the l'rince what ho thoughe of that'? The Primee replied, "My sheplurds are more mumemus than your sheep." 1 rince Fstirhazy is anill to posseng a llock of 300,000 sheep. feel an his esintes chuetly in Hongary. The supprintentence and managrouent of the tlocks is conducted with the ureatest regularity ; monthly re ports are sent in to a lloand of Directors, who are appointed to supperinfend rand give instructions to the different pernons in charge of farms. Spanieh Murino Rams liavo been sold in llungary for $\$ 1.000$ and upwnis.
Tho French Government have exponiled largo sums of moncy nt diferemt timpa in importing Sheep from Spain and other countried, to improve their flocks, hence the superiority of tho Frenelh Merimos at the prosont time; thres faets are mentioned to show Hint grent importanne is attached to tho breeding and keeping of Sheep, almost in overy country of the civilized world.

When Sheup aro kept in such inrue numbers as 1 havo spoken of, it is for the sake of tho mool, not the mutton; sthe mettom is a secondary consideration, in fact, a matter of little importance ; they are pastured on land that cost tho owners lut litte or nothing, the greatcest expense being the paying of shepherds to take elarge of them.
Sheer are kept in large numbers in some parts of Inyland and Seotland : these take whint we may term a midille standithe wool and matton both being very valuable. The Sherep are bred and pastured on land commonly known as Moor I, ands, or (iorse Commone, or Henther; thase lande nre nlmot worthless but for the parturing of Sheep; thexe are kept by the brecders until they aro tun or thrre gears nhl, when they are sold to farmers and graziers whon live in more favored loralities, fntten on the rich pastures or turups, and sold to tha butcher, and po to feed the milion. We then conie to anuther description of Sheep, viz., the l.ong Wools; theso are penernily breil and fattened by the samn individunt, never elanging hands unill sold to the butcher. Theso Sheep torna the minority, but I think it is by far the most interesting pant of Sheep tarming.
We could heppose of any quantily of that breed of Sheep. There is alwaya a good demanil for Wool at priees whelh may be consillered remunerative ; takugg the average of the last fere years, it will be found to be about 25 cents per 16 , for conse Wool. I have alvays found that the cath realized from the rale of Wool comes in quite opportunely, heing at a titne of the year when the Canadinin farmer has very litite else to dispose of:. As to tha elass of Shecp best adapted to our country, 1 supiose thers is a variety of opinion. Of the linglisit breeds, we have the l.eicesters, the Teeswater, Liurolns. Chevints, amd Soulhdowns, French and Spanish Merinos, sud 1 suppose some others of the fine wool breeds. All these difirem kmis bave their alloivers nat adiocates. We have sone of the old stock, the Camadian, but this class is getting small, most of the sheep throughout the country being crosed with ono or other of tha imported breeds.

Wo now come to a very important part of our subject, viz., the cross breeding of Sheepp.
Ihere are but fex, comparatively apeaking, of our Candian farasere who jossess the means to import stock from England or oother placers where the pure breed can bo obtained, and there is a less nunbur still who have the dhyposition to do so this beinge attended with grat expense and risk of eapital. But there is a proat number of farmers who wish to inprove their stock of Sheep by purchasing those anmails whell havis been bred from lmpored Stock. If hite it is beyund lee uesans of some individuals to iunt port, 11 is within the means of the majority of farmers to purchaso thooe whah base been bred from imported stock, especially male ammals.
If am indivilunal farmer thinkn lue cannot afford to pay 20,30 , or 40, or more dollars, ior a Tup Sherp, hin eould join one or more of his nequhtors to io so, as one Tup would serve from fint to one humentred uves.
Murch has lieen spoken and written about crossigg Merinos with Lencesters, the Nathve with Merinos, Southdowns and Merinos and a variety of eroseses, buit contess that 1 have no faith in it. A very uecful class ot Slaeep may bo obtained by crosing a Canadian five wilh cilher a Lucieester, Catswoid or Teeswater ham. The produce of thes eross will be a good plump carcase, with a tiecee weighing five or six poumls of clean washed wool. I wish here to correct what I consider a prevaling errur; that the first cross is the hest. li's true, the change may be more apparent, but no certain deyree of excelkence can be obtained, unless the fenale is equally: well.bred with the nate. This, however, is impossitho to bo obtained under present circumstances. We must eadeavor by erossing and select. ing. to uprove our breed of Shece, and this we may arcomplish by eare and attention. Our motto should to "E Execlsior," still higher. At tho end of every two years $n$ Tup should be introduced into the Stutik from another family of Sheep, so that there bo no in and in
becling, anol that should bu a better one tlian you had for the past two years if is can be gol.
The following particular points denand attention; and as in entthe, and male has tho greatest inlluence, it is proper to specify those regusites which aro consudered essential to a good lam.

The heat of a Kam, should be fine and small, his nostrits wide and expanded, mis eyes prominent, and rather bold and daring; cars thin, his collar full from his bewnt nud sboulders, but tapering all the way to where tho neek and heall join, which should be very fine and graceful, being perfiectly fien trom any coarso leathor hauging down; the shoulders broad and full, whith must at tho same time join so easily to the collar forwand, nud chme back ward, as to leave not tho least hollow in ether place ; the mution unon his arm, must come quite to the knee ; his legs upright, with a fine bone, being equally clear from superduous skin alfl course hairy wool ; the breast troad nall well lormed, which will keep his fure legs at a proper widenegs; his chewt full and deep, annd msteal of a hollow belmed the shouldera, that jart by somu called the fore ilank, should we equite fult; the lack and loins broad and hat and atraight, Irom anch the ribs should rise with a fine circular arch; his belly straight ; the quartere lorge and full, with the mutton quite down to the hough, which should stant neither in nor out; his twist deep, wide sud fill, which with the broad breast will keep his forv legs open and upright; the whole body covered with a thin pelt nant ilat with fine bright sott wool. The characterislic marks of tho liwes shoulit be the eane as those of the lzam. There is to breed of sheep equal to the leeicestur as far as beauty and eymuetrical torm goes, alon in coning to early maturity, but thuy are too delicuto for our lony and sovele winters

Tha Teeswnter in far butter adapted to Canada than the Lecices. tor; but 1 liave no objection to a dash of the Leicestor with the Terswater.
Thg Cotawold or New Oxfordshire Sheep is equally well adapted to Canadn, nad in some respects perhaps better, buing of a very hancly constitution, growing to a large size, and producing a splendid fleece of wool.
In the specimens of wool which I have shown you, you will perceive that there is considerablediflemenco in the length and finoness of the staple, the weight of the theece being about equal, the Tecswater $\mu$ rowing so long and thin in some cases leaves the back of the Sheop quite bare, while the wool on the Colswold grows in a thick compuct mass, so that it is aluost mpossible for wet to penetrate through it; perhaps they are not equal to the other breeds in coming to early maturuy.
To be a successful breuder of Sheop, requires a great deal of puttent perseverance, and attention to all its details, and o thorougb aerquantance with the principles of bneeding ; the reason why so uany individuals wha hive invested large sums of money in purchasing expensive animals have failed is the want of practical knowledgo. One in judicious croas in a valuable flock will leave tis nark for years. I will give you an illustration of thes; for the last two yens I have used two rauns, the one a Cotswold, the other a Tres. water with a dash of Leelcertor; part of thes enes that had lambis by the Cotswolit ram in 1858, have liad lumbits by the Teeswater ram in 1859: the type of the Cotswold is very plair in some of those. 1 Io not tay this was a bad crons, I mention it for illustration
All females are very susceptible during the tume of conception; perinaps the greatest instance we have of this is in the case of Jacob. I suppose you are all acquainted with the circumstance. I hope there is no one present but will acknowledge, that the hand of Divine I'rovidence was at work in this instance. I'et it s sows on the part of jacob an intimate arquaintance with the nature and habits of brevedmy animals.
It was said by Mr Burie that the man who made two Llades of grass to grow where only one grew before was a benefactor to his country. We think that the man who can proluce: a breetl of \&herp that will giella a double amount of wool and mutton on a given quantity of foul, where only lalf the quantity was probuced before may also be considered a lenefactor to his country.

Among the brecelers of long wool sharep, the late Mr Kake well standsat the head of the list. 11 . was the originator of those beauiful animals known as Lecicester Sheep. There is a number of others who are entiiled perhaps to nhoont as much ereelit as he is for foilowing up his improvement. Mr Junas Wubb, ronnwned as a Soutadown breeder, is well know. He has dnae nore than any other man to improve lhat valuable breed of Sheep.
There is another breed of Sheep which is paining favour in Enyland. I mean the Cotswolds or New Oxfondshire. The Teeswaier is an old and favorite brect, in some parts of Eingland, and we think well allapted to Canada.
1 shall now proceed to the sulyject of Sheep IIusbandry as it concerns ourselver The question has ofien been put to nie, "is it profitable to keep sheep;" My answer to this question is in the affirmative. Ayp opmonn is, the keepung of sheep is profitable di-
rectly, and indirectly more profitable. When we take into consi-
deration that tha land of this Provinee, hy a continued sucrescion of eropping, becomes exhausted of irs natural fertility, we nak ourselver, how is it to be prevented? that is the remedy? The nnswer is, kerpstock in consume the produce on the premises, and return to the land that whith we have taken fmm in. A fair propertion of this stock should he sheep. Sherep will convert an in mense quantity of coarse fodder into valuatile manure, if properly managei, and I think owr farmers would find it more prufitalde to appropriate a greater portion of their hirm to the fechling of sheop, than they row do. by suligeting the land to tho continued operation of the plough, and the prowing half erops of grain.

Tho last two years must surely havoled farmers to aco the sit. vantage of paying more nttention to the stock farming. My opinion is, that under any circumstances a mixed husbandry is thus silest, for it will not in any year entirely diappoint the hopes of the Inrmer. Ile cannot suffer no scrious a las na tho firmer who depends altogether on his gram, alouhd his qrain be blighted or burnt up with drought. It is scarcely probable liat a total destruction of live stock, wool, and grant would neceur in ore jenr. Wio need not bo afrad of rnising 100 many sheep. for ous neightiours on the ot her side of the Iaike are prepared to buy all we lonve to spare, sime brather Jonathan has become so fond of English nutton. The 13th of November is a gond time to put the tup wirh th: ewes, tho tume of generation teing whout five calendar munthe, the lamhe will come about the last two weeks of A pril, and tho beginnink of May. If the lambs come much earlier than this. the owes require a great deal of allention and expensive feed, otherwise they will get low and out of comlition.

In conclusion I may remark, that of tho various animalsgiven by a bquntatial liovidence for the benefit of man, there is none of greater uthity than tho sheep. Tho sheep atlords us food and clonhing; alid in the manufacturing their wool, persons may be emplosed in produsiwa labour, in the winturs of Camada, when they would otherwise, perbaps, be unproductive consumers. Sherp should constitute a material part of a farmer's live stock and profis, in this ''rovince, and I believe that nothing will pay thes farmer better for kimd amd likeral treatment, thun the sheep. When a man cultivates a larm or a field, the amount of proviluce is generally in ratio with the nuount of inbour bestomed, manure appliced, nuit quality of seed sown; so it is with a flock of sheer, it you lurn them on the mads in summer, and feed thein on nothing but straw in the winter, it is unreasmable to expect that they will gield much in return.

I have not said anything about the qualities or the properties of the Merino sheep, becanse 1 know :ery litile about them experj. mentelly, but being nalves of countries much milder binn our own, such ns Feance and Span, I think lioy are not so wrill adapted to the long ami sovire winters of Cinnda, as tho long wooled sheep; they are not very haudsome or attractive to look at, hut they ouph: not to be despised on this acrount, fur drubthess they are ver! useful on account of their wool, and I would remind my brother farmers, especially thowe belonging to the younger class, that we should be careful not to deepise the usefill for the sake of the beautiful.

If I havo in rending this paper. shown anything like enthusiasm on the subject of Sheip Il isbandry, I hope you will escusa it, for I assure ; ou that I am much athaheil to it, and if cincumstances demanded that I shorld occupy anything like n menial position on a farm, and I had my choice, it would bo that of a shepherd.

But before I close, allow me to express a wish, hat I hope the time is not far distant, when, insead of selling our wool to be carried out of our neghbourlood or out of the country, we slall sell it to be manufatiored at l'ort llope, and that the leamitul and powerful streain that runs bivugh the luwn, wheh has been made triburary to the waking of a great amont of machinery already, will be applied still further to yield the motive power required for a Woollen Factory.

I may state lhat a building is erected at Port Hope, possessing every cenvenience for the alxove purpose, as soon as a person or persons can be found who have the necessary capital and enterprise to work it.
111.-AGRICULTURAL INTELLIGENCE.

## NOVA SCOTIA AGRJCULTURAL SOCIETIES.

We have now received upwards of thirty five Returns from the different Societics. Some that have come to hand sunce our last publication are excellent, and contan many
vnluable practical hints. We shall puhlish a few moro in our next number, and then give a summary of tho whole.

We requested the Publishers of the fiutrnal to formard fire copies to ench Socicty, in the loppo that at least that number of copies may be required. It would be very obli ging if tho Se eretaries would bring the mater to tho notice of their respective Committecs at an enrly meeting, that, if more are requirent, information may be forwarded to the proper quarter. Wu lase alrendy intimnted that ono great object of the Journal is to furnish a vehiche by which the varions Societice and liarmors may have an opportunity of dithusing throughout the coustry any Jocal intelligeneo or information. Wo ennestly gulicit commanications from different districts of the l'rovince, giving an account of any proceedings or operations connected with Agrieulture nol Iforticulture that may bu of greneral interest-such as the drainnge or other itnprovements of the soit, tho results of tioo applications of different manures, state of the crops, 太e., dec.

## AGRICULTURAI FXIIIBITIONS.

PIIEse Exhibitions linve, within the last forty or filty yenrs, proved one of the most effective menns in furthering the cause of Agriculture. Thuugh differing considernbly in their modes of mangement, as well as in their range or "Xeent of articles shown or competed for, they lave all one object in view, viz., the production of the lnrgest and finest specimens of Grain or Roots, as well as the roming of the purest and best-conditioned kinds of Stock, and thereby stimulating to granter effort in che improvensent of both these deparments of hasbandiy. 'The Royal Agricultural Socieiy of lingland, and tho Ilighland Society of Scoland, are, perhaps, the two Societies that have contributed more than all others in promoting these Shows or lixhibitions. These Associations, composid of all ranks ame professions, from the I'rince Consort down to the humblest Farmer in the country, poseses a large number of Auxiliaries in the countries that form the scene of their operations respectively, Whilst they bave a grame central foeds around which they all rotate, and from whelt chay derive: all their anian ard light and eneryg. These Auxaliaries have ail a kind of ill. dependent existence, and hold their loend matetiogs and exhibitions, and yet they all look to the l'arent Socioty, and bring the best of their produce and stock to enhance the general annual meeting whach is held once a year in some leading cits -and thence ngain a mighty inflat nee is exerted ugon the datlerent branches-umd so on conimuously, acting and reacting the one upon the obler, nad the grand end for which they were called into being to some extent served.The successtin compelitors are required to give an aceonnt in writing of the mode in which the articles eatining the frize were grown, the mature of the soil with its mechanical and chemical manngement; and, by this means, valuable practienl knowledge is diffused fir and wide ; those resident in other localities strave to vie with or even to outstrip the purties that gained the first premium, and thus a generous rivalry is evoked, which is atlended with the most beneficial results. 'I'his, or something loke this, was the practice in Nova Scotia till the time of the breaking up of the Central Board of Apriculture by the very power that summon' i it into being. 'This step, we believe, was taken by the Legislature, not because of any deticiency in the organization, but because it was supposed not to be producing those results which the public were warranted to expeet, or which such an expenditure seemed to demana. Wheober there was any good ground for suchit supposition, it is not for us to say ; but to us it seems clear and pialpable that the souner this organization is resuscitated, and new and fresh life iafused into all its proceedings, the better for the furtherance of Agriculture througheut the E'rovince. We believe that out of the thirty-five thousand Farmers in the country,
twenty-fire thounand would ngree with us in this matter.Along will this resuspitation there ought to bearrangements mole for a grand exhibition to be lield in rotation in coma lending town in the l'rovince, nod announcement given of the aricles of emmpotition at least two genrs before the exhilition tukes plare. fisun nught to be expended at euch alinirs cevery yenr, $£ 2 j 0$ of which amourt nught to belong to the Sereety nad subserihed by its members, and the rest granted out of tho 'I'ressury. Steps ought to bo taken by which tho lending ment throughout tho l'rovinec, whether liarmern or not, shall be enlisted in its promotion, nad by which it slanll be considered something like a repronch not to be one of isa number. What bine nilitated more than nnything eko sugninat the sucerss of there exhibitlons in this Prucince has been the brief period usunlly given to prepare for competition; at all eventa, the list of the urtieles to be competed for has not lieron put into circulation till within a few weeks of tho time fixed, therely nullifying, in a gront mensure, the whole ohjipe of the exhithition. Memoirs of the procceatings of the Society nught to be carefully ferinted nad circulated extensivels in the lrovince for the infurmation and benefit of all;-mand thas a gener, ons rivalry be geenernted. Therso and aimilar imprasements would tend hargely to the ndvancement of Agriculture, and to ele vate it to the position it is entitled to occupy. But we shall ruturn. to his suljeet ugain. In tho menntime wo rejoice to learn that there nre to be reveral Exhithitions throughout the Province daring the course of this and tho succeeding month. A list of the articles for which prizes are offered by the Sucieties of l'arreboro' and 'rioro hava come to hand. Wagiadly give them insertion in the dournel, and hope that our Agriculaural friends, and erpecially the siecrutaries of the Societies, will not fril to forwird an account of the proceedings comnected trith such Shows.
 JAHמsmono Abiscivitenal. nocifity foll 1850.
10a. for 100 buphels Swediah Turmps.
5s. " 50 ""
2s. gid. for 8 bunkela Peas and lleans.
6. Sor 2 -" Ilaysued.

2s. Gd. for 1 " $\quad 4$
5s fint 10 buelirls Blood-red Beots.
bs. " 10 " Carrols.
6s." 2 ewis. Oammeal.
6s. "scting out 20 Plume 'Trecs in 1859.
5s " " 20 Cliery "
3a. per ox-catt loud Compont malle in 1859-from 1 to 20 loallsif such is approvell of by Sociely.
5s. per tree from one to fire pralted Apple 'l'rues set ont in 1850 nud 1860, frous two to thur gears old, and set out in a manner appenved of hy Sineinty, to te pail on the thirl Monday in December 1801, provided the trees aro then thrity and one jear net out; but only ls. pre tree to he pint for such
 ance in 1859 and 1860.
20s. for the beat contrivance of a Stable for warmth and saving manute, to contain at leant 10 head Ca: ile, constructed in 1859
12s. 6.7. for the serond tuest ditio.
is. Gul. for the third best ditto.
\&s to any memher of the Socicty who errets and puts in oporation an Oat Mill in Parraboro within the year 1859
IResolved, That frem six to ten lecieester Rams be purchased this year, and to ine procured and sold to members of Society or othera in Parrdooro and Macsan.

P'arrsboro', 2nd May, 1859.

An Aprimitural Eihilision for Colehester, under the auppiecs of tho Now Annan and lawer Steriarke and Shoubenaculie Agricul. tural Senceties, and :lat Truro and Onslow Apricultural Associathon, will bre held at Trurn on the second Thurslay of October next. All Fammers and othere living in the comntr, on payment of fives shillings to the Fixhibition Fund, shall tre allownd to compete. l'rizes as by list will be given for the best animals, \&ic., in descrip.
tion, size, quality, frc. as the amme arm arnerally juriged. No onn animal or article to taky a firxt and rimend prize. The following is a list of tho articles, with premiume offred :-

## Slock.

Fit Oxen. pnir


Working diito, pair
Steres 2 years old, pair
Do. 3 rears olin, do.
Bunll of nny nge, in alilition
13ull 2 yrars and upmaris
Bull 1 year
Bull catr
Milrh Cow
Ilrifer 1 yrar old
Heifer Cals
Draught lineses, pair
Mare nill Colt
Colt 2 years old
Colt 1 ymarnd
Rnm uniter 3 zenrs
Best B Eivers
Brst 5 Ewe Tambs
Breuding Sow
Fal lloz
Boar under 18 months

## Jmplements.

Roller
Inrrow
Plough
0
6

Wheat, ono busicl
Grain, llools, Produce, \&c.
Oats, iwo bushels
50
Barles, one bushel
Timoihy Seerl, two buahels
$\begin{array}{ll}12 & 6 \\ 10 & 0\end{array}$

Beans, one bushul
Pens, one bushel
Table Pointoun, one bushol
Apples, one bushul
50
Plums, one perk
Prars, one peck
Turnips, Swedish, ono dozen
Carrota, one dozen
Mangel Wurtzel, ono dozon
Berts, dozen, according to quality
Pumpikins, couplo
Syunghes, couplo
Tub Iluffer, 20 lbs. ami] upwaris
Checse, not less than ten pounds
Domestic Manufaclure, $\oint c$.
Cloth, wool, men's wear, fulled, not lens than 5 gads. 10
Ditto do. not fulled, $\overline{5}$, das or more 10
Cotton and Wool, men's mear, $\hbar$ yards or more 30
W'hite- Flannel, wool, 5 yards or nore
Dilto colton and wool, 5 yuls. or more 7
Cloth, nomen's wear, prused, 6 yards
Blankets, pair
Wiollen Carput, not leas :han ten yards
Mug. woollent varn
llug. rag, hooked
Socks. pair
Stockings, pair
Siraw Bonnets, pair
Straw Ilats. couplo
Willow or IKod Potato Baskets, couplo
Butter Tuby, half dozen
Axe Handles, half dozen
Intending competitors mat give information thereof to the Secretary at least a fortnight before the day appointel.
J. Lanaworrin, Sec'y Culchester Ag. Sueiety.

Truro, July 30, 1850.

## garden and poultry show.

Tare Ilorticulfural and Poultry Association of Malifax held their first Slow on the 14 th inst. The display of Autumnal Flowers, both Hardy and Greenhouse, was very
fine. 'The Pronit, though excellent, was limited, there heing only two regular competitors. The Veqelables did not come off to our expectations, and were certainly much inferior to tha enmples sent to thu Industrial Exhlihition five years ngo. Many; we heliese, were not aware of the existence of the Aesociation, and had therefore mado no preparation for the Exhibition. There was a rish and beauliful collection of Poultry from the establishment of Mr. Downe, N. W. Arm. Altogether, the frienils of this important movement have great cause to congratulate themselves at the anccess of this undertaking. We linve no doubt but that, under tho anspices of such philanthropists as Dr. Cogswell, Mr. AI. G. Black, Jr., \&e., \&c., the Association is destined to confor a high boon on the community. The Rer. Mr. Brewster and Dr. Forreater, Superintendont of Eilucation, addressed tho meeting on the oljuecta of the Associntion, nad earnestly and forcibly invited all to come forward nud give it thetr cordial support.

## THE WHEAT CHOP OF 1889.

The folloning article upon tho wheaterop of the present yenr :s from the Afermopotian Bunk Ninte Reporler of New York. It seems to be carefally considered, and as an ertimate of the erops, based upon apparemily refiable inlormation, is worlhy of altention:
The Wheat romp,-The wheat crop has generally heren hartested throughout the country, and sufficient is known to make a carnful ertimate of hisis imporant ntiphe, interesting for present cousidcrotion nnd ingortanc for future refirence.
The last offie:ial return of the whole whent erop is from the Pa. tent offise returna of 1855. Using this as a basis, and gotiling the increase in production from a conparison with the lormer Reporte of the Patent Uffice, and by the acelual investigations mate by seveeral of the States, pinticulasty Ohino, wa have the tuenns of obraining approximately from tho averago nn:ount of latul in cultivation for this erop, the yield for this and other yenrs. In this connection it may le remarked that it is found that the everage amount of land does not fuetuate like the yidh per acre, but liku mortality, in poverned by certain lawa. The as ernge yield per nere every year is only to be found by carefully exanining the reports from dififreal parts of the country, ete. With labor we havocollected the returns for this yusr, and aive then below in comparison with the returns made out hast year for 1857 and 1858, and which we have had t.0 occasion to change.

The production of wheat in the several States, for 1858 and 1850 may be anted ns follows:

WHEAT.

| Stath. | 1857. <br> Illuahols. | 1858. Busheis. | 18.59. <br> EJurhels. |
| :---: | :---: | :---: | :---: |
| cw York | 22.000,000 | 20,000,000 | 22,060,000 |
| comaglvauia | 20,000,000 | 20,000,040 | 25,000,000 |
| irginia aud North Carollina | 20,000,000 | 18,500.000 | 20,000,000 |
| entucky | 10,000,000 | 8,500,0110 | 11,000,000 |
| io . . - - | 25,000,000 | 22,000,010 | -6,001),000 |
| s | 15,000,000 | 13,000,010 | 17,000,000 |
| Ineia | 18,000,000 | 14,500,000 | 20,000,000 |
| cher States | 80,000,000 | 42,000,000 | co,000,000 |
|  | 180,000,000 | 158,500,000 | 201,000,000 |

The production in the Western States, whirh have the largest surplus for export is shown by the following figures:


Tha surplug for the present year in these States may be estimated as follows :


It is estimated that in addition to this, from one.six'h to one.fifth of the surplus crop of 1898 is yet in the hands of tho producers.

We therefare have in the Sitates, estimatingtast year'a amrplus ernp of the West at iwenty four millions of hushels, as the gross surplus:

Cron of 1859
Bushels.
38.000 .000

Total for export
$42,010,000$
Tho transportation of this at farty cents per hashel will pive neariy suventern millions of ilollars to our camals and railiould.

It will probably bo thought by many that this eatimato of two hunilred and ono inilions of burhels is a largo ono for lio present what erop, but we think not In 1855 tho l'atout Olico returne gave the wheat cemp at ono hundred and sixty-five milinong of hush. Ms: and it is considercel as not a large return for chat year. In 1805 California was put down as promlurirg only trenty thousaml bushels; last vear it promuced ovur bur millions; nnd this yeap jrobably five millions. In 1855 lientncky produced only five millions of bushels; it now produces elaven millions. Pennessed has been, except for homu concumption, n whent groving State only since the opening of the Mrophis and Charleaton Railroadd : hus now ta wheat ranks in quality arcond to that of no other Sinto. The Now Englanit Sintes havo decreased in their proluction, hut the West has inerensed four to one. The amount of Innd mintur what cultivation this jear is thirty-ilureu per cont. greater than in 1855, and tha decreaco puer nero in the proxluction eannot bo greatur.

It should bu remembered that the roports of the failure or oxeres of a cropare alanost invariably exagyeratel. It has been fount that unless a toral apparetir fitibue fakes place, the dillerener be. tween two crops rarely exceueds lorty jur cent., or butween a small coppanil an averago ono, twenty per cont.

The whiat cropi in the soveral States many be conailered an harvested anil parli,illy rondy for market. Wh rant, thorifore, givo the following relarns with some legeree of certsinty :

In Niow England the area was nut larger than in former 9 ars, and the crop is not harvested, but protumes, hy ita superior quatity, a relurn cipual, perhapss, to any previous year. In Now York the crop is armprally exvellent, but in some fuw counties complaint is made. In P'enasylinamanel New Jersey tho brealih of land and that yidd pur acru have nuver heforo lween as great. In Virginia aul North Carolima the guality is superior, the land sown rablher above the average, and the yiehl fully ten per cent. over an average and good erop. Trmmeses and Kínntacky have largely inertased their breallh of hand somb, and the yielid per acres is abovo the nverage, while the quality of grain will inake their wheat, as in former yrars, tha beat in market. In Ohio, tha Serrelary of the Board of Statistics has prepared careful returus of the wheat crop in that Sute, and estimates the yield at over $25,000.000$ of bushols. showing that notwithstanding the frost which was mores suvere in that State than any other, the gueld will be larger than evor bufore by fifteron per cent. In Indinna the su!ne feathres exist as in Ohio, with perhaps lexs lows by froct. In : illinnis thore has been some complinat about the xpring whent, sul of all crops in some of the northern commice, but notwithatanding. the yield will be tharty per cent. greater than ever before. In fowa there is no complaint innde: enther of yield or quality. In Wisconsin and Minnesola the winter wheat is very fine, and the spring wheat pronives well, but is not yet secure In Muchigan complaints have bern made, bat they have jocal fonniation. In Mi-souri the wheat erop is senondary to some others but the press of that State express no dissatisfartion.

With export pries we should doubtless have a movement of the crop nerer betore witnessud, hat as this is dependent upon two things, namely, the continuation of the war and poor crops in Europe. we shall perhaps witness no busuml moviment. Dur peoplo linve not, in geting political independence, fot, or even learned the value of comusercial independence. Weare, therefore, dependent upon a forcign demand. If now the prodacer and the consumer were both in this country, if our manufactirers une our raw material and our problucers used houne manustitures, we should not have the anomaly of a people almost learing ton large a crop, and hoping for disasters to their nerighbours almost, to enable them to sell their surplus. When will we learn wisdom?

Tinangilanting Fiemgmpens.-The Iondon Gardener's Cironicle descrihes the following method as pronnsing great eftheacy in revising plants drical by having had their roots too long out of ground, and in ensuriner liseir sate removal in late spring nad summer, and as being especially fitted for evergreens when trans-planted:-
"Moke a bole in the ground to contain about 20 gallons of water, and pour about 16 gallons into it, ald to :las about 20 lby. of
barngaril manure mixend with shont the arme guantity of fino rich mil. 13y working themixture for a long time, and carefully, you rellure it to the consanence of whitemath. In this mixture sleup the romis of gour jolants, just leffore putting them into the pround: the eath thenwn atier them into the hole sticks to the ronts, wheth immeifalely brgin tomarll. de tho very firat morement of anp rootlets appear throngh this coating, which gives them immedintel manure, and not noly bringa on but securns the further formation of roota. Oneo finirly rentrod, theme in nothing maro to fuar."This reminila us of the plan for enterusting eqeela with manure in onder to givo tho sreillinga a good alart, rorommuntend liy an inge nous genteman at Now Orleans.-sxientific Imerican

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Tilf June number will fintoh tho firat year of tho existence of thila peo. riodical. Though tho Journal hase not reoeirel the supmot that might haro been expected frum the parties for whoso benefit it was mainly Iniecmed, atili, taking all thinge infil account. it hane had a fair circalation fur the timit
 arall themselvera of this opportantity of tondering their beat thinks to tha

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