

to clay, mingled with stones of various sizes. There had been almost continuous rains for three weeks previous, and the ground was, for the most part, thoroughly saturated with water, and the greater portion of it had been recently covered with a coating of long manure.

In consequence of the inequalities of the surface of the field, there was necessarily a diversity in the various lands and sections,—some being more stony, wet, or adhesive, than others. This source of fallacy was guarded against by your committee as far as they could, by taking copious notes of the physical condition of the different lands, and making due allowances when determining the awards. The vegetable matter on the ground was not sufficiently thick to prove any serious impediment to the operation of the implements. After the competitors had drawn for the number of their lots, the following rules for regulating the awards were announced in the hearing of each competitor:

RULES REGULATING THE TRIAL.—In deciding the general question—What are the best plows? the committee will be governed by the following principles: 1st, the character of the work performed; 2d, the power required in draught; 3d, quality of materials, durability and cost of the implements.

For *stiff soil*, excellence of work shall consist, first, in leaving the furrow slice light and friable; second, in so disposing the sod and all vegetable matter as to ensure its ready decomposition.

For *sandy soil*, or that which is already too light, the points in regard to work will be, first, thoroughly burying the vegetable matter; and second, leaving the ground generally level.

For *fallows*, or old land, the principle in reference to the quality of the work will be, the thorough pulverization and friability of the soil.

In determining the power required in draught, the most perfect instrument will be used, and the trial will be conducted in the most careful and thoro' manner.

The same implement for testing draught, and the same team will be used for all plows in the same class.

The plows may be held by the competitors, or persons appointed by them, as may be preferred.

The trial being open to competitors from any part of the world, fourteen plows were entered for premiums.

OLD LAND TRIALS.—Before commencing the work the committee passed the following resolution, viz:

Resolved, That the Plow which effects the most thorough pulverization and inversion of the soil, with a depth of furrow of seven inches, shall be deemed to make the best work.

Name of Competitors.	Name of Plow.	Name of Plowman.	Dft.	Wt. Plow.	Price Plow.
A. Fleck	Wilkie's Scotch,	M. Hutchinson	487	175	\$25.00
French & Smith	Michigan Sod & Sub-soil,	J. Brydon	406	174	13.00
Eddy & Co.	Washington co. Iron Beam D.	S. R. Mott	439	112	10.00
— Randerson	Schodac,	— Randerson	342	109	8.00
Minor & Horton	Peekskill No. 21,	J. Mooney	363	107	7.50
Starbuck & Co.	Trojan No 5,	— Smith	379	109	9.00
P. Auld	Improved Scotch,	T. Williams	373	116	9.50
Prouty & Mears	Centre draft No. 5½,	J. Mooney	383	119	12.00
Bosworth, Rich & Co.	Iron Beam D,	T. Leonard	425	102½	8.50
— Finch	Empire A 3,	M. M. Webster	456	99½	10.00
H. L. Emery	Albany,	H. L. Emery	427	133	10.50
W. U Chase	Amsterdam No. 6,	J. Mooney	343	129½	
E. J. Burrall	Shell-wheel,	E. Smith	350	126	11.00
Prouty & Mears	Connecticut Valley,	J. Mooney	525	99½	10.50

The lands were marked out 162 feet long and 23 feet wide. The preceding table exhibits, 1st, the name of the proprietor of the plow; 2d, the name of the plow; 3d, the name of the plowman; 4th, the draft of the plow; 5th, the weight of the plow; and 6th, the price.

While the plows were in action, they were carefully watched by the committee, and every circumstance which they deemed essential was noted. The appearance of the land after plowing, its friability, the comparative time of drying, the amount of vegetable matter left uncovered, were then carefully examined. The result of their observations is summed up in the following remarks:

A. FLECK'S Wilkie's Scotch Plow.—Performed work in a handsome manner; the furrows were high set, and their form was well adapted to cover the seed with a friable soil after it had passed under the action of the harrow. The materials of the implement were of the best quality, being wholly of iron, and all the portions of it, except those exposed to the abrasion of the furrow-slice, appeared almost indestructible. In our opinion it is liable to the following objections: 1st. Its draft is heavy. 2d. Its weight makes it too laborious for the plowman to handle, particularly where the furrows are short, and the turnings are consequently frequent. 3d. Its price is too great for the means of ordinary farmers. 4th. It requires a more thorough training on the part of the plowman than is ordinarily attained by the farmers of this country. 5th. The bottom of the furrow is left uneven, that portion of the bottom contiguous to the land-side, being deeper than the portion nearest the furrow side. It is evident that this cut gives less friable earth adapted to the exigencies of the crop than if it were level at the bottom.

FRENCH & SMITH'S Michigan Sod and Sub-soil.—We shall not notice this plow minutely in this connexion, reserving our remarks for a subsequent part of this report.

EDDY & CO.'S Washington Co. Iron beam D.—This is a strong and well made plow; the beam is of wrought iron, and we should suppose from its construction, that it was well adapted for very rough and stony land. Its draft is heavy, and the mould-board presses heavily on the upper and lower edges of the furrow, so as to leave the surface exposed after plowing, curved, from the effect of the pressure. This peculiar action not only expends power wastefully, but packs the earth which ought to be pulverized.

RANDERSON'S Schodac Plow.—The good qualities of this plow were brought out in the fullest relief by Mr. Randerson, whose expertness as a plowman was particularly observed. The lightness of draft of this plow is very remarkable; this was seen as distinctly in the action of the team as from the indications of the dynamometer. It also possesses another quality which will recommend it to many farmers; it can be used by an inexpert plowman with better effect than most of the plows exhibited; it runs easily without turning towards the land or from it, and when once gauged, it keeps the required depth with great steadiness. Since good plowmen are procured with so much difficulty in many places, this quality of the plow will prove of great value. With these qualities, it fails in its pulverizing action; the furrow-slice is simply turned, with scarcely any comminution of its particles, and it does not bury the grass and other vegetable matters on the surface, with that thoroughness which good husbandry requires.

✓ MINER & HORTON'S *Peckskill Plow*, No. 21.—Those of your committee who have watched the operation of plows for several years in succession, which have been exhibited at our annual fairs, are no strangers to the excellence of this implement. It is constructed throughout by a rule, which was exhibited to some of the members of your committee several years ago. At each successive exhibition, competitors have approximated more and more closely to this plow, and the great excellence of many of the plows manufactured in this State, is due to the skill and ingenuity of Messrs. Miner & Horton. No. 21 turns an excellent furrow, surpasses most in pulverization, buries the vegetable matter well, is strong in its construction, durable in its materials, moderate in price, and light in its draft. But in our opinion would be improved, by an apparatus by which the breadth and depth of its furrow could be more readily and accurately adjusted.

STARBUCK & Co.'s *Trojan* No. 5.—The proprietors of this plow were unfortunate in drawing their lot, as it was undoubtedly the worst on the ground. It was situated at the base of a side hill, receiving its drainage. At the time of the trial it was very wet, excessively stoney, and covered with a ranker herbage than any other lot on the field. The confidence of the proprietors in the excellence of the implement was very strikingly exhibited by their submission to its being tested without the slightest remonstrance under circumstances so decidedly unfavorable. It is undoubtedly difficult for any judges to make a proper allowance for these inequalities in the physical condition of different lots, and it is possible that injustice may be done in spite of the greatest care and impartiality; but your committee in making their award, endeavored, individually, to be "fully persuaded in their own minds." *Trojan* No. 5 is undoubtedly an excellent plow, and in its capacity for turning under weeds and stubble, without choking, is probably unsurpassed by any plow at the exhibition.

P. AULD'S *Improved Scotch Plow*, made good work. It seems well adapted to adhesive soils, as from its form and the quality of the metal used, it will *scour* well. It lacks the apparatus for proper adjustment, which renders it somewhat difficult of management.

PROUTY & MEARS, *Centre Draft*, No. 5½.—This plow possesses an extraordinary combination of excellencies. The point or share presents a gradual, easy rise of the furrow to the mould-board, which is on a gentle spiral curve, in its transverse and diagonal sections, and of such length as to insure a free and easy delivery of the furrow at its after end, and not requiring the foot of the plowman to prevent its falling back from whence it came, and having the cohesion of its particles so far disturbed as to admit of the genial influences of the sun and rain, those powerful agents of decomposition. It is of that peculiar structure which is so well adapted to the form which the under side of the furrow naturally assumes, in the process of being inverted, that after a few hours service, not an inch will be found which is not polished by the passing furrow.

The *centre draft* principle, seems almost universally misapprehended by most farmers and plow makers, although it has been the characteristic feature of Messrs. Prouty & Mears' plows for many years. Most persons suppose that this appellation refers to the draft-rod, which dispenses with the application of the power at the extremity of the beam; but this is not so. Its takes its name from the ap-

proximation of the beam to the central section of the implement, most other plows having the beam placed directly over the perpendicular land-side. The land-side makes an acute angle with a perpendicular, from the sole of the plow, and hence the furrow-slice, instead of being rectangular, is rhomboidal. The combined action of the coulter and plow, loosens the earth composing the acute angle, so that when the furrow-slice laps on the preceding one, the loose earth falls into the channel made by the lapping of the furrows and completely buries the protruding vegetation. This feature of the plow is looked upon by your committee with great favor, as it is almost impossible for a rectangular furrow-slice to be so laid as to shut in the grass so as to insure its decomposition, and to repress its growth.

The inclination of the land-side also brings the *standard* on which the beam is placed within the body of the plow, the front edge of which is thrown forwards in a curve under the beam, so as to prevent the vegetable matters on the surface from lodging on, and choking the plow. The after part of the head of the standard, is extended in such manner as to secure the beam and land-side more perfectly, and being within the body of the plow it admits of the position of the beam being in a line parallel with the land-side, and also causes the line of draft of the latter, and the line of motion of the plow to be parallel one to the other.

As the draft rod and other apparatus of adjustment attached to this plow, are in some respects peculiar, we subjoin Messrs. Prouty and Mears, description thereof.

"THE DRAFT ROD.—The under side of the fore end of the beam of common length, is elevated from two to five inches above the level of the standard at its junction with the beam. At the fore end of the beam is secured a metallic graduating arc, having a slot of about six inches lateral extent, and through which is passed, vertically, an eye-bolt of about ten inches in length—about eight inches forming a male screw, the female consisting of a nut on the under, and a powerful thumb nut, or knob nut, on the upper side of the graduating arc. By means of this arc, nuts and screw, the eye of the bolt may be elevated or depressed, and also passed to the right or left of the centre, and thus secured in its position—thus adjusting the line of draft with great accuracy. In front of the standard, under the beam, embracing its sides and extending up back of the standard-bolt, is a clevis, having its ends secured by a strong bolt through the beam. This clevis has three notches to admit the hook on the end of the draft rod. One central, and one extending out on either side of the beam. The draft rod is a bar of round iron—having at one end an eye to draw by, and at the other is formed a suitable hook or eye by which it is attached to the clevis after having been passed through the eye of the adjusting screw bolt.

"This apparatus, when applied to the Prouty & Mears plow, (the land-side and standard of which are inclined, and the beam on a line parallel with the land-side,) admits of the plow carrying its proper width of furrow when drawn by two or more horses walking in the furrow, when the draft rod is hitched into the right hand notch of the clevis and full to the right in the graduating arc. Hitch central in the clevis, and set central in the arc and it follows equally well, a yoke of oxen or a pair of horses. Let the rod be hooked into the notch on the left of the beam, and moved to the left of the arc, and it follows the team of three horses abreast as perfectly as before, in each instance holding its

width and depth of furrow, turning over and completely covering the sod and all vegetable matter.

To sum up the merits of this plow, it appears to us that it combines in a very remarkable degree the somewhat opposite qualities of ease of draft with pulverizing power; it buries the vegetable matter very thoroughly; it is made of very excellent materials; it is not expensive; the workmanship is of the best quality; it can be easily repaired, and facility in its use is easily acquired by the plowman. It is steady and equable in its motion, requiring little labor on the part of the plowman, and is susceptible of most accurate adjustment. The commendation which we have bestowed on the durability of the materials, strength of construction, neatness of finish, and general excellence of workmanship exhibited in this plow, applies with equal force to all the plows exhibited by the same proprietors.

BOSWORTH, RICH & Co.'s Iron beam D.—This plow has the merit of being the cheapest of any exhibited. Its construction gives it some advantages in plowing in stumpy land, and from its facility in turning, it is convenient where the furrows are very short. But your committee are constrained to say that the work performed by this plow, does not meet their approbation, as it requires too much aid from the foot of the plowman to place the furrow-slice in a proper position. It packs and solidifies the furrow-slice in consequence of the pressure of the hinder part of the mould board; the draft is heavy, and its action is vibratory and unsteady.

FINCH'S Empire A 3.—The same objections apply to this plow as to Randerson's, but it presses the furrow harder and requires more power.

H. L. EMERY'S Albany Plow, does good work, except that it fails to bury the stubble well.

W. U. CHASE'S Amsterdam Plow No. 6.—This implement was not properly adjusted for showing its peculiar properties, and therefore your committee hazard no remarks on its action.

E. J. BURRALL'S Shell-wheel Plow.—Much ingenuity is displayed in the construction of this plow, and from inspection, and from theoretical considerations, we should have been inclined to attribute to it valuable qualities; but it failed to effect a thorough pulverization of the soil, and to cover under the vegetable matter, without assistance from the foot of the plowman.

PROUTY & MEARS' Connecticut Valley Plow.—We cannot entertain a doubt of the excellence of the execution of this implement in soils adapted to its use; but it was not adapted to the soil where it was tried in our presence.

Your committee have thus passed in review all the plows offered for competition in this particular kind of land, and have given their opinions so far as they know their own hearts, with entire impartiality. They would have praised with far greater pleasure than they have blamed; but their duty to the society, and to the farmers of the State, seemed imperiously to require that they should honestly state the facts as they presented themselves to their view, with their conclusions, without fear, favor or affection.

STIFF SOIL TRIALS.—Having thus finished the trial of plows on "Old Ground," they proceeded to test those entered for plowing stiff sod.

The field selected was of a stiff clay soil, with a smooth and almost level surface, generally free from stones, in a very wet condition from recent rains, and covered with a sod which had been unplowed

for many years. The size of furrow-slice prescribed by the rules was 7 inches by 10 inches. The lands were 150 feet long by 23 feet wide. Twenty two plows were entered for competition, and the annexed table shows, 1st, the name of the competitor; 2d, the name of the plow; 3d, the draft; 4th, size of furrow; 5th, the price of the plow, and 6th, the weight of the plow.

Names of Competitors.	Name of Plow.	Dft.	Size of Furrow.	Price of Plow.	Wt. of Plow.
French & Smith,	Michigan sod and sub-soil,	500 8	by 10	\$13.00	174
Miner & Horton,	No. 21,	425 7	by 10	7.50	107
French & Smith,	Michigan Joint plow,	510 7½	by 12	10.00	
Eddy & Co.,	Washington Co. D,	450 7	by 12	10.00	112½
Miner & Horton,	No. 22,	550 7	by 12		
Prouty & Co.,	Centre draft, No. 25,	490 7	by 11	11.50	108
H. L. Emery,	Albany,	550 7	by 11	10.50	133
Bosworth & Rich,	Right and Left.	550 7	by 10	7.00	122
Finch,	Empire A 3,	525 7	by 12	8.75	99½
Gilbert,	New Jersey,	560 7	by 12	6.00	93
Starbuck & Co.,	Trojan No. 5,	425 7	by 12	9.00	109
Scott,	Ohio,	650			
Prouty & Co.,	Centre draft, 5½	470 7½	by 11½	12 00	119
Prouty & Co.,	Centre draft, No. 30,	450 7	by 10½	10-50	93½
Bosworth, Rich & Co.,	Iron Beam, E D,	380 7	by 10	8.50	102½
W. U. Chase,	Amsterdam, No. 2,	500 7	by 11		114
Randerson,	Schodac,	390 6½	by 10½	8.00	109
Starbuck & Co.,	Iron Beam,	410 7	by 12	8.50	
A. Fleck,	Wilkie's Scotchswing,	475 7	by 10	28.00	175
Starbuck & Co.,	Trojan No. 3,	460 7½	by 12		
P. Auld,	Improved Scotch,	475 7	by 11	9.50	116½
E. J. Burrall,	Shell Wheel,	410 7	by 11	11.00	126

FRENCH & SMITH'S Michigan Sod and Sub-soil.—We reserve our remarks on this plow for another place.

MINOR & HORTON'S Peekskill Plow No. 21.—This plow does excellent work, though intended for a wider furrow, and working disadvantageously in this. It yet made good work, pulverizing the soil in a satisfactory manner. This plow, as well as No. 22, hereinafter mentioned, was held by a person unaccustomed to the implement, and for that reason all the excellencies of the plows were not developed. It runs with great steadiness, and requires very little interference on the part of the holder.

FRENCH & SMITH'S Michigan Joint Plow.—This implement has merits, but is inferior to the "Sod and Subsoil Plow" of the same proprietors.

EDDY & Co.'s Washington Co. D.—This plow is not calculated for so deep a furrow as seven inches. When working at this depth, much power is expended upon the furrow slice which is hardened and polished by the pressure. It cleans out the bottom of the furrow well, and runs very steadily.

MINER & HORTON'S Peekskill No. 22.—This plow does not leave the land as light as No. 21, nor is it as well adapted for the work required by the rules.

PROUTY & MEARS' Centre Draft No. 25.—Leaves the furrow too flat and heavy for stiff soils, but buries the grass satisfactorily.

H. L. EMERY'S Albany Plow.—The furrows were smoothly cut, but the grass was not well covered, and the soil not sufficiently pulverized.

BOSWORTH, RICH & Co.'s Right and Left Hand Plow.—This plow performed its work admirably, with a single exception of the great power which was required to operate it. It pulverized the soil well, and buried the grass very thoroughly

FINCH'S Empire A 3.—This plow has but little pulverizing action, and leaves the furrow slice heavy; but runs squarely and steadily.

GILBERT'S New Jersey Plow.—Was worked without a wheel, and was deficient in apparatus for accurate adjustment, and its furrows were cut unequally as to depth and width. It requires too much power, when running seven inches deep, to become a favorite with our farmers.

STARBUCK & Co.'s Trojan No. 5.—This is a valuable plow, and will undoubtedly be a favorite with many farmers; it lays its furrows smoothly and evenly, but does not pulverize the soil or bury the grass as well as the standard of good plowing requires. This plow, like many others which were exhibited, took too wide a furrow in proportion to its depth. We deem the growing tendency amongst plow makers to adapt their implements to a wide furrow-slice, as an evil sign of the times, fraught with the worst results to the cause of agriculture. No fault is attributable to the makers for this; they only comply with the demands of their customers, but we think it high time that an earnest effort was made to disabuse the minds of Farmers of this error, as it is one which must necessarily diminish the returns of their labor. Like all the plows made by these gentlemen, it is of easy draft. Messrs. Starbuck's plows were all held by Mr. Smith, who exhibited admirable skill as a plowman, and brought out their good qualities in the amplest manner.

SCOTT'S Ohio Plow.—The proprietor of this plow stated that it was not prepared for working, and requested no remarks in regard to it.

PROUTY & MEARS' Centre Draft No. 5½.—Made good work, but takes too wide a furrow to do the required work on this soil in the best manner.

PROUTY & MEARS' Centre Draft No. 30.—The general form of this plow is similar to that of the "5½," except that it is calculated to do deeper work in proportion to the width, which is a great advantage for stiff soils. Lightness and friability are the main objects to be attained on such soils. They should be plowed *fine* and well pulverized, not only for the purpose of making a suitable seed-bed, but in order that the action of the air may develop and render soluble the latent vegetable food which they contain. The operation of this plow was highly satisfactory in these respects. The furrow-slice was cut with great uniformity, (as per table,) and it was left beautifully open and light, while the grass was so completely covered as to prevent its growth. This was particularly observed by the judges, who visited the field five days after the work had been done, (during which interval there had been a fall of rain,) in order to compare the condition of the land plowed by the different implements. The lot plowed by this plow, lay considerably on what had formerly been the track of a road, which made that part of the soil, especially towards the bottom of the furrow, very hard, and increased the draft; yet the implement held its depth well throughout. The attachment of the draft-rod to that part of the beam nearest the centre of the plow's weight, is thought to have a favorable effect in keeping it to its depth and giving steadiness of motion.

BOSWORTH, RICH & Co.'s Iron Beam E D.—This plow required less power than any other on the ground, but it was deficient in pulverizing action, and covered the grass imperfectly; and the sod required the foot of the plowman to assist in its inversion.

W. U. CHASE'S Amsterdam Plow, No. 2.—A good, substantial, and cheap implement. Sufficient pains had not been taken in its adjustment before

trial, and the plowman not being accustomed to its use, all its good qualities were not made apparent.

RANDERSON'S Schodac Plow.—The remarks on this plow, under "old land" plowing, will apply in this connection. It is proper to state, also, that it did not, generally, work to the depth required. In this instance, twelve furrows were plowed before the dynamometer was put on, the average depth of which was not over six inches; and when the implement was put down to seven inches, for the purpose of testing the draft by the dynamometer, the furrows plowed showed very conspicuously above the rest of the land. The great difference in the power required to plow six inches, and that required for seven inches, will account, in a considerable degree, for the ease and expedition with which Mr. Randerson's horses moved.

STARBUCK & Co.'s Iron Beam.—Similar to the "Trojan" No. 5, but does not work quite as evenly and smoothly as that.

A. FLECK'S Wilkie's Scotch Plow.—This plow operated with great regularity, cutting its furrows seven inches by ten, with uniformity and precision, leaving the edges or corners high, and exposing to the air a large proportion of the slice. At the time of the examination of the field by the committee, the lot plowed with this plow was found to be in a much drier and lighter condition than most of the lots, and at a subsequent examination it was noticed that but little grass had grown between the furrows,—a result which was owing to the furrow-slice having been left in so friable a state that the ridges had crumbled down and closed the interstices. The bottom of the furrows, though cut more squarely here than on old land, (a different share having been used) was still liable to the same objection as mentioned in that case. The plowman, Mathew Hutchinson, is a very superior workman, possessing all the qualities which make the true plowman, and we should neglect a most pleasing duty, were we to fail in unanimously awarding him the praise which his work so richly merits.

STARBUCK'S Trojan, No. 3.—Makes good work, and buries the vegetable matter better than any other plow by these makers.

E. J. BURRALL'S Shell Wheel Plow.—Is substantially made, but is deficient in pulverization and in burying sod. The committee examined the various lands with great care on the completion of the trials. Five days afterwards they examined them again, and three weeks subsequently a part of the committee examined the work, and the opinions above given are the result of their combined inspections.

SANDY SOD SOILS.—Our next trials were in a sandy sod soil, situated on the Island, north of the rail road depot. The soil was an alluvial sand, with a very tough sward, which had not been disturbed for twenty years, and which had been used for pasturage during that period. The lands were of the same length and breadth as those on the "stiff sod" trials. The following table indicates the draft of each plow:

Names of Competitors.	Name of Plow.	Draft.
Finch,	Small Empire,	490
Miner & Horton,	Peekskill, No. 21,	380
Miner & Horton,	Peekskill, No. 20,	370
W. U. Chase,	Amsterdam, No. 2,	350
French & Smith,	Michigan Joint,	440
French & Smith,	Michigan sod and sub-soil,	450
Starbuck & Co.,	Iron beam,	390
Wm. U. Chase,	Amsterdam, No. 6,	395
Bosworth, Rich & Co.,	D,	410
Starbuck & Co.,	Trojan, No. 5,	350
Finch,	Large Empire,	430
Randerson,	Schodac,	340
H. L. Emery,	Albany,	420

Sod and Sub-soil Plow, because in our opinion, it could not be brought into competition with other plows, without great injustice to the proprietors of the latter. In the first place, it is properly a *three-horse plow*, while all the others are two horse plows. Secondly, its *double* character distinguishes it from all others.

We regard this implement as a most useful present from the mechanic to the farmer, and in our opinion its introduction will effect a great improvement in the tillage of some kinds of soil. It pulverizes the soil in an excellent manner, which to be fully appreciated, must be seen; and it accomplishes this pulverization with an amount of power which, in reference to the work performed, is certainly not large. It buries the sod *completely* and covers it with a coating of loose earth which makes a seed bed almost as perfectly as a spade.

In other plows tried, there was *one* size of furrow-slice which the plow turned better than any other; if a broader or narrower furrow was taken, the plow would act less perfectly. This was not the case with the "sod and sub-soil" plow; it seemed to perform equally well whatever was the breadth of the furrow, and this quality we deem a great advantage. We do not wish, however, to be understood as recommending this, as a plow adapted to "all work." Where, from peculiar circumstances, it is not desirable to plow deeper than six inches, we cannot recommend this implement; its peculiar pulverizing powers are not fully developed with a furrow shallower than seven inches. Its properties may be given in substance as follows:—

1st. It is particularly useful where *trench* plowing is required; that is, where it is wished to bring the sub-soil or a portion of it to the surface. This is a useful operation where the sub-soil abounds with vegetable food in a greater proportion than the surface soil; as on alluvial and other very deep soils, where the upper stratum has been exhausted by cultivation. 2d. It is also exceedingly valuable for ordinary *stiff* adhesive soils, the greatest defect of which is their tendency to pack too closely. This defect is in a great degree obviated by the manner in which this plow performs its work. It cuts its furrow-slice in two parts, horizontally, by which operation it makes twice as much division of the soil as is effected by an ordinary plow when going at the same depth and width, and from the fact that each part is turned over by itself, it falls lightly, and remains in a pulverized state.

In consideration of all the circumstances we recommend that a premium equal to the first, in amount and in honor, be awarded to this plow for "old land" and "stiff sod" plowing. In view of the results of the trials instituted by us, and detailed above, we recommend the following

AWARD OF PREMIUMS.

To FRENCH & SMITH, for their *Michigan Sod and Sub-soil Plow*, for plowing on "Old land" and "Stiff sod". Diploma and \$15.00

OLD LAND.

1st Premium to PROUTY & MEARS for their *Centre Draft* No. 54. Diploma and 10.00
2d Premium to MINER & HORTON, for their *Peekskill*, No. 21, 8.00

STIFF SOD SOIL.

1st Premium to PROUTY & MEARS, for their *Centre Draft* No. 30. Diploma and 15.00
2d Premium, to MINER & HORTON, for their *Peekskill*, No. 21, 10.00

LIGHT SOD SOIL.

1st Premium, to PROUTY & MEARS, for their *Centre Draft* No. 25. Diploma and 15.00
2d Premium, Wm. U. CHASE, for his *Amsterdam* No. 7, 10.00

SIDE HILL PLOW.

To BOSWORTH, RICH & CO., for their *Side Hill Plow*, Diploma and 8.00

SUB-SOIL PLOW.

To PROUTY & MEARS, for their *Sub-Soil Plow C*, Diploma and \$8 00

The committee, in making the above awards, would not be understood as claiming *entire perfection* for any of the implements; on the contrary they believe there is room for improvement in all; their decisions are intended to show, that, of the plows which came under their examination, those on which the premiums were bestowed, were the best for the purposes designated. We would earnestly invite the attention of manufacturers of plows to the necessity of adapting their implements to *special purposes*. It is a great mistake to suppose that the construction of a plow "of all work," as it is called, is possible. The different circumstances under which plows must be used, and the different objects to be attained, render a difference of construction absolutely necessary. For instance, clayey and tenacious soils ought to be thoroughly pulverized, and to effect this, they must be plowed with a deep and narrow furrow, and left as light as practicable. Sandy soils, on the other hand, should be merely turned over, to expose a fresh surface to the atmosphere, and to bury the surface vegetable matter, without pulverizing or making the soil more loose—its lightness being already too great to prevent the escape of the æiform and liquid matters which constitute the food of plants. It may be observed, too, that plows of somewhat different construction are required for rough and smooth land—a shorter implement, especially, being required for the former situation, in order to adapt itself to the inequalities of the surface. It is obviously impossible that the same plow can fulfill such antagonistic conditions; and it therefore becomes necessary to ascertain what are the best plows—not for general purposes—but for the various special purposes to which they must be applied.

The committee would do injustice to their own feelings were they to fail to acknowledge their obligations to Ezra P. Prentice, Esq., the President of the Society, for his earnest efforts to promote the success of their experiments, by valuable advice and intelligent co-operation. They also desire to express their cordial acknowledgments to B. P. Johnson, Esq., the Secretary of the Society, for his assiduity in anticipating and providing for all their wants during the trials of the plows. Much of the success which has attended their labors, is due to his untiring watchfulness and intelligent zeal.

They also desire to express their thanks to all the competitors, without exception, for their kindness, and for the liberal confidence which they displayed towards the committee during the protracted trials of their implements. To H. L. Emery, of Albany, and Wm. U. Chase, of Amsterdam, their thanks are especially due for active and willing assistance rendered by them on the field.

ANTHONY VAN BERGEN, }
JOHN STANTON GOULD, } Committee.
SANFORD HOWARD, }
B. B. KIRTLAND, }
PETER CRISPELL, JR. }

NOTE.—Suggestions by the Committee in regard to points connected with the construction of plows, which require investigation, and also hints in regard to conducting trials of plows, will be attached to the report in a supplementary form, when it is published in the *Transactions*.—Eds.

LARGE FIELD OF WHEAT.—We learn that Mr. William Cook, of Lima, harvested this season 466 bushels of fine wheat from ten acres of land. The wheat was of the Soule's variety and was drilled in with one of Spencer & Co.'s drills.

The Horticultural Department.

CONDUCTED BY J. J. THOMAS.

Selecting Fruit for a continued Supply.

THERE are two reasons why home-raised fruit is better than that purchased in market. First, fully ripe fruit, plump with melting richness, may be taken fresh from the tree for immediate use, instead of being plucked while yet hard for two or three days of carriage and exposure in market. Secondly, where fruit is raised in one's own garden, the tenderest and most delicious may be selected; while that which is to be offered in market is usually of such sorts as have a showy exterior, or yield the largest crops. Every man, therefore, who possesses a rood of land, should endeavor, as far as possible, to furnish his own table. There can scarcely be conceived a better combination of the elements of comfort, independence and economy, than in a succession of the very best home grown fresh fruit for the use of a family for the twelve months of the year.

The time for autumn transplanting is now at hand. In selecting the varieties, there are several considerations to be borne in mind. 1. As a general rule, it is safest to adhere to those sorts which have proved best with the best cultivators in each particular region. New and unproved sorts, no matter how highly they may be recommended, should be introduced sparingly. 2. A supply may be relied on at all times and through all seasons with greater certainty, by a rather extensive than meagre list. Some fruits succeed best in one season, and others in other seasons. For example, in one year nearly all the early cherries rotted but the *Kentish*, which in other years was passed as second rate. We had the present summer three fine sorts of early peaches ripening at about the same period, namely, *Fay's Early Ann*, the *Tillotson* and *Serrate Early York*. The two latter bore but few specimens; the former by a profuse crop supplied the deficiency. One year may be noted for its abundant crop of strawberries, another for its bountiful supply of raspberries, a third for its grapes, and a fourth for its pears. Hence a wide selection, provided the very best are taken, will prove most satisfactory.

We have repeatedly given select lists of fruits in former numbers of the *Cultivator*. It may perhaps be interesting here to mention only a few of the best or most noted for particular purposes. The season of fruit begins in the northern States by the first of summer, with cherries and strawberries. The earliest strawberries, really worth raising, are *Large Early Scarlet*, *Burr's New Pine*, and *Boston Pine*; the later sorts are *Old Hudson*, *Hovey's Seedling*, and *Dundee*. The earliest cherries are *Early Purple Guigne* and the *Doctor*; the later are *Elton*, *Downton* and *Downer's late*. *Holland Bigarreau* and *Black Tartarian* are fine cherries, and also productive for market. *Belle Magnifique* and *Plumstone Morello* are excellent late cherries. These two sorts coming in this year, after the rotting season, were beautiful, sound and perfect. Apricots, ripening by midsummer, immediately follow cherries. Unless they are planted on a soil with a naturally dry or well drained sub-soil, they are liable to perish long before reaching old age. Low heads are thought best, but are not proof against this disaster. The hardiest apricot, not of the highest quality, but well worth raising, and as hardy as a sugar maple, is the *Black*. Of the others, the *Golden* or *Fishkill* and the *Breda* are the most reliable. The *Large Early* and the

Moorpark are less certain and productive, although of fine quality and large size.

The *Primordian* plum, a rather tender and slowly growing variety, but profusely productive, ripens with the earliest apricots, and is for this reason very valuable. *Early Royal* and *Imperial Ottoman* succeed the *Primordian*, the *Green Gage* and *Lawrence Favorite*; these are followed by *Washington* and *Jefferson*; *Purple Gage* is rather late, and the *Frost Gage* quite late, and a profuse bearing market variety. The *Lombard* or *Bleecker's Red*, and the *Imperial Gage* are well adapted to light soils. *Coe's Golden Drop* is a fine large late sort, not always ripening at the north.

The three best very early peaches we have already mentioned. They are followed successively by *Cole's Early Red*, *Coolidge's Favorite*, *Large Early York*, *George IV*, *Crawford's Early*, *Morris White*, *Nivette*, *Oldmixon Free* and *Crawford's Late*.

The best early pear is the *Madeleine*. Afterwards we have those delicious summer varieties, the *Ros-tiezer* and *Tyson*; then the *Barlett* and *Washington*, both free growers, and great and early bearers; these are succeeded by the *Seckel*, unequalled for high flavor, by *Louise Bonne of Jersey*, unsurpassed for productiveness, and by the *Flemish Beauty* for its free growth, large size and fine quality. The *White* and *Gray Doyenne*, on soils adapted to them, are scarcely equalled among late autumn pears. Among late autumn and early winter sorts, the *Aremberg*, *Winkfield* and *Winter Nelis* are regarded generally as the best. The *Easter Beurre* if fully ripened and well kept, is a very desirable late winter and spring pear. The new variety, the *Autumn Paradise*, is likely to prove a pear of great value for mid-autumn. *Onondaga* or *Swan's Orange* and *Beure Dieu*, as well as *Barlett*, *Flemish Beauty* and *Winkfield*, are desirable for market from their size and beauty, to which may be added the *Golden Bilboa*, although but little above medium in size.

It is scarcely necessary to point out those varieties of the apple which will give us fresh fruit through autumn and winter, and till the early summer fruits appear the succeeding year, the best sorts being so well known.

Materials for Potting Plants.

According to the *Gardener's Chronicle*, the best materials for the cultivation of plants in pots, are the following:—

Loam—the best is procured from very old pastures or commons—the surface to be pared off not more than two inches—to be laid in a heap to decompose for 8 or 10 months. A heavier and a lighter will be found of great convenience, for plants of different habits.

Peat—in choosing this, it should be procured from a dry rather than wet locality. If coarse from fern roots, it should decompose in a heap. Peat is of great value in keeping composts open, and assisting drainage. In this country, where it cannot always be easily had, leaf-mould, from the woods, is a good substitute.

Manure—stable dung, quite rotted, is perhaps as good as any thing. It should never undergo fermentation. For some kinds of plants, cow-dung three or four years old, will prove very useful.

Sand, of a pure white kind, is the most desirable—the nearer it approaches pounded silica, the better.

To attempt any thing beyond mediocrity, without being possessed of the above materials, will be found a waste of labor. These materials should be always kept within reach of the potting bench, in a

condition fit for immediate use. It is this foresight that has rendered the course easy to many a successful aspirant, and the want of it the ruin of half the plants propagated. For plants will not generally thrive in any compost, however carefully attended to, unless some attention is paid to their natural wants and habits. Plants in pots are in an artificial position, and require a proportionate amount of care in cultivation.

The Curculio—the opinions of Doctors.

Where any evil is extensive, and its remedy difficult, we are always sure to have plenty of prescriptions. Nothing exemplifies this truth more strikingly than the efforts to get rid of the Curculio. We have at least a dozen remedies on record, nearly all of which have proved in a greater or less degree effectual, as for example jarring them down on sheets; paving beneath the trees; syringing the forming fruit with lime wash; pounding the earth beneath the trees and sweeping up the fallen fruit; confining pigs and geese; repelling by fermenting manure and other offensive odors; saturating the ground with salt; squirting over the trees tobacco-water or brine; decoying into wide mouthed vials; throwing them up to the frost, &c. Our object at present, is not to go into a discussion of the merits of the various modes, but to give the opinions of a few men of extensive experience, now that the season for these depredators has past, and before the commencement of another.

C. M. HOVEY, of Boston, for 15 years past editor of the Magazine of Horticulture, says, "It cannot be denied, that thus far, of all the plans suggested for limiting their ravages, not one can claim so much merit as that of *shaking them from the trees daily*, during the whole period, when they make their attacks upon the fruit. All the barbarous plans for disfiguring a garden, by paving it with bricks or stone,—making it a pig pen or henery—saturating the soil with guano or salt and numberless other modes, too numerous to mention, suggested by those who are novices in horticulture, are of little or no value, compared with that of shaking the trees and catching the 'rascals.'"

F. R. ELLIOTT, secretary of the Ohio fruit conventions, of the N. American Pomological conventions, &c. says, "Of the many receipts that have been chronicled as certain cures, none with us other than the mesmeric manipulation of that veteran Pomologist, David Thomas, '*stays put*,' that is catching them on a spread sheet. Paving, salt, sulphur, &c. are of no avail. Last season I paid a penny for every specimen;* this year I can well pay in plums."

A. J. DOWNING, in his Horticulturist, known as the best magazine on gardening in America, says, "We still think that pigs and poultry are the cheapest and most serviceable preventives to the Curculio, when the trees can be planted in yards which are thoroughly *investigated* by them. There are doubtless cases where, from incomplete arrangements, this mode may have failed; but in all instances, where thoroughly carried out and preserved in, it will be found an efficient and cheap mode. Meanwhile, paving is nicely adapted to the amateur's garden."

There can scarcely be a question that a combination of the preceding remedies, thoroughly applied, would be effectual in all cases.

The Transactions of the Essex Agricultural Society, Mass., furnish the following from a contribu-

tor,* which we have found the best mode of preserving from the curculio new or rare varieties, in small quantities for testing:—

"Last year I made two bags of old thin muslin, and drew them over two limbs about the time the fruit set. Within each of these bags I saved a few beautiful plums, and not a plum did I save on any other part of the tree. Last spring I bought a few yards of bonnet lining, and covered the limbs of several trees, some when the plums had set and others when they were in blossom; for I found the enemy had made their appearance while the trees were in bloom. Undereach of these, I saved plums, apricots and nectarines, upon limbs of twelve different trees; and these were the only ones I saved. * * One small branch, covered by a bag, measuring six and a half by nine inches, contained twenty-one beautiful plums, hanging in one solid cluster. Upon another tree, I saved eight Moorpark apricots. I am training apricot trees in the form of a fan, to make them more convenient to be covered with muslin."

Market Gardens and Rail Roads.

Rail roads have had a wonderful influence on the production and sale of such articles as are quickly perishable. And on nothing has the influence been greater, perhaps, than on the market gardens about London. Covent Garden market has been famed for its remunerative prices of fine things. According to the Gardener's Chronicle, \$300 have been obtained from an acre of cabbages, \$500 for an acre of rhubarb, \$700 for an acre of asparagus, and of strawberries. Single forced cucumbers have sold for \$2, melons for \$5, forced strawberries at half a dollar an ounce, and grapes \$6 per pound. These prices are high, but the expenses are enormous. Fitch, of Fulham, (who has sold nine cart loads of vegetables in one day by nine o'clock in the morning) has paid out for the use of 100 acres of land, manure and all expenses, *nearly twenty thousand dollars a year.*

But fresh market gardens have sprung up all along the lines of railways, and made a fearful change upon the old gardeners. Land in the country is not a sixth part of the price it is near the city, and railway conveyance is cheap. Many families in London now receive the produce of their own country gardens. Railroads and steamboats have effected still another change. French vegetables and fruits are brought into London before the usual time for the English markets, having an earlier climate in their favor. The London gardeners possess a decided advantage in climate over the northern counties, and large quantities are consequently sent north. In short, the old and limited bounds of trade are broken up, and a general distribution both of profits and consumption made throughout the kingdom.

A similar result is taking place in this country. If our territory is wider, the greater difference in latitude will give the north the benefit of southern productions all the earlier. The Early Tillotson peach ripens in southern Virginia more than a month sooner than in New-York. A more general cultivation of this variety there would supply New-York city with an abundance of excellent peaches before mid-summer. This peach ripens at Vicksburg and Natchez within a fortnight of the first day of summer, and the more central portions of the Union might be supplied much earlier than from their own raising. Increased facilities for transportation, the growth of cities, and a greatly extended culture of

* The actual cost is not a fifth of this.

*As copied by Hovey's Mag.

early varieties of fruits and vegetables of different kinds, must ultimately render the domestic trade in these articles of the greatest importance to producer and consumer, and tend to equalize the price of land by giving the gardeners and fruit raisers living 25 or 50 miles from large cities nearly the same advantages as those formerly within close proximity.

Lime for the Curculio.

Much attention has been excited the present year by a new remedy for the curculio. It was first tried by Lawrence Young, of Louisville, Ky., and has been repeated by others. It consists simply in covering the young fruit, as early as danger is apprehended, with a coating of thin lime wash, considerably more diluted than the mixture usually employed in whitewashing. It proves quite effectual; but it must be repeated after every shower, and even after heavy dews, which wash off the lime. For this reason, it has proved, in the past wet season, more laborious than catching the insects on sheets. A dry season would be more favorable for the remedy with lime. It is applied by means of a large syringe.

The Stanwick Nectarine.

No new fruit has excited so much attention in England of late years, as this new variety of the nectarine. It was introduced from Syria, and although it has born fruit on the grounds of a single individual, the Duke of Northumberland, the specimens disseminated among judges have received the highest praise for excellence and delicious flavor. It is about the size of the Elruge, but much paler in color. According to Lindley, it is "exceedingly tender, juicy, rich, and sugary, without the slightest trace of the flavor of Prussic acid."

A great sale of 24 small trees of this variety took place at London, near the close of last spring, the only trees then in market. They were purchased chiefly by some twenty individuals, mostly nurserymen, for an aggregate sum of over \$800, averaging more than \$30 a tree, and some sold for more than \$50. Time will determine whether, after a wider and longer cultivation, its high character will be sustained, and whether it will prove of much value in this country. Fine nectarines, it will be remembered, are quite an uncertain result among us, unless they have received extraordinary attention. Doubtless they who pay a high price for this will endeavor to persuade themselves that it is quite as fine as its merits will warrant. At the same time that enterprise is to be commended, we must not forget that nineteen-twentieths of all newly introduced wonders among fruits, have ultimately sunk greatly in public estimation after rigid trial, or been wholly forgotten. This should render us cautious, but not cause us blindly to reject every thing without a fair trial.

Horticultural Miscellanies.

BLACK KNOT ON THE PLUM.—Benjamin Hodge, of Buffalo, N. Y., who has raised and sold trees for the past thirty years, says he has never had this malady among his plum trees till the present season, and that in the instances cited, it was introduced from the East. One case was with two trees which came from Boston; in another instance, twenty trees out of some hundreds received from the eastern part of the State were affected; and a few trees grown from scions received from Massachusetts were attacked in the same way.

THE VICTORIA REGIA.—According to Spruce's Voyage up the Amazon, this remarkable plant, growing in water, has leaves four feet in diameter,

which increase to eight feet during the rainy season. It is even asserted that some have attained twelve feet in diameter. So great is their size and so perfect their symmetry, that when turned up they suggest some strange fabric of cast iron just taken from the furnace; its color and the enormous ribs with which it is strengthened, increasing the similarity. At the exhibition of the London Horticultural Society last summer, a flower with two leaves of this plant were exhibited, the latter measuring each *five feet ten inches in diameter*.

EARLY SECOND CROP OF GRAPES.—The Gardener's Chronicle states that at last summer's exhibition of the London Horticultural Society, which closed the 13th of 7 mo. (July,) "there was a bunch of black Hamburg grapes, *perfectly colored*, from Mr. Wilmot, of Isleworth, which formed part of a crop ripe upon vines that were loaded with ripe fruit last February!"

OLD FOREST TREES.—We once counted the rings of a large tulip tree at the newly cut stump, in Western New-York, which we made out ninety years old at the discovery of America by Columbus. This tree was 124 feet high. The pines at the west on the Pacific coast, which attain such enormous dimensions, have in some instances numbered nine hundred rings. Such a tree, consequently, would have served as a bean-pole in the time of Gengis Khan, and was a tall towering forest tree of two hundred years during the conquest of Tamerlane.

LARGE ORCHARDS.—Dr. Kennicott states in the Horticulturist, that eighteen miles above Peoria, Ill., Isaac Underhill has five hundred acres in orchard. He has in the last two years planted out 12,000 grafted apple trees, and 7,000 peach trees.

PRUNING.—It is said that the donkey first taught the art of pruning the vine; man being merely an imitator, on seeing the effect of cropping the points of the young shoots. It is not always the greatest wisdom to originate, but to turn to good account whatever by thoughtful observation comes within our reach.

LUCK WITH TREES.—We have noticed that certain men always have much finer peaches, and pears, and plums, than most of their neighbors, and are called *lucky*. Their luck consisted, in the first place, in doing everything well—taking what their neighbors called foolish pains—leaving nothing unfinished; and in the second place, in taking good care of what they had; that is, giving their trees wide, deep and mellow cultivation, applying manure where necessary, and especially the liquid manure from the chamber and wash tub. Great pains taken, whether with fruit trees or with children, scarcely ever fail to produce good results.

STIR THE SOIL.—The greatest horticulturist, almost, of the present day, says, "If I had *'a call'* to preach a sermon on gardening, I should take this for my text: *STIR THE SOIL.*"

HARD TO SUIT ALL.—At the American Congress of Fruit Growers, in 1848, a fruit committee of nine persons prepared a select list of fruits worthy of general cultivation. Although many hundred sorts of the pear have borne fruit in this country, all perhaps pronounced "*excellent*" by the nurserymen who sold them, yet there were only *two* that the fruit committee could *unanimously* agree upon to recommend, namely, the **SECKEL** and **BARTLETT**.

DEEP SOIL AND DEEP ROOTS.—A. J. Downing says, "I have seen the roots of strawberries extend *five feet* down into a rich deep soil; and those plants bore a crop of fruit five times, and twice as handsome and good, as the common product of the soil only one foot deep."

**List of Premiums
Awarded at the State Fair at Albany.**

CATTLE—SHORT HORNS.

BULLS—Over three years old—1 and 2. No award—3. J. D. Thorpe, Albany, \$5.—Two years old—1. Sherwood & Stevens, Auburn, \$20—2. S. P. Chapman, Clockville, \$10—3. Geo. Vail, Troy, \$5.—Yearlings—1 and 3. No award—2. Lorillard Spencer, Westchester county, \$10.—Calves—1. J. M. Sherwood, \$10—2. F. M. Rotch, Butternuts, Trans. and \$3.—Extra Stock—Certificate to Sherwood & Stevens, for "3d Duke of Cambridge," which received first premium in 1849.

Cows—Over three years old—1. Geo. Vail, \$25—2. D. D. Campbell, Schenectady, \$15—3. Thomas Hillhouse, Watervliet, \$5.—**HEIFERS**—Two years old—1. Ambrose Stevens, New York, \$20—2 and 3. Geo. Vail, \$10 and \$5.—Yearlings—1. Geo. Vail, \$15—2. S. P. Chapman, \$10—3. F. M. Rotch, \$5.—Calves—1. Geo. Vail, \$10—2. J. M. Sherwood, \$3 and Trans.—Extra Stock—Certificate to S. P. Chapman, for "Charlotte," which received the first premium in 1849.

DEVONS.

BULLS—Over three years old—1. R. H. Van Rensselaer, Butternuts, \$25—2. John Muir, sen., Hamilton, \$15—3. Arden Woodruff, Wyoming, \$5.—Two years old—1. John Freemyre, Schcharie co., \$20—2. No award—3. H. N. Washbon, Butternuts, \$5.—Yearlings—1. H. N. Washbon, \$15—2. Leroy Mowry, Washington co., \$10—3. Lewis G. Collins, Dutchess county, \$5.—Calves—1. Lewis G. Collins, \$10—2. H. N. Washbon, \$3 and Trans.

Cows—Over three years old—1. H. N. Washbon, \$25—2. L. G. Collins, \$15—3. E. P. Beck, Sheldon, \$5.—**HEIFERS**—Two years old—1. E. P. Beck, \$20—2. H. N. Washbon, \$10—3. M. C. Remington, Cayuga county, \$5.—Yearlings—1. Leroy Mowry, \$15—2. L. G. Collins, \$10—3. H. N. Washbon, \$5.—Calves—1 and 2. E. P. Beck, \$10 and \$3 and Trans.

HEREFORDS.

BULLS—Over three years old—1. Wm. A. Keese, Peru, \$25—2. E. Corning, jr., Albany, \$15.—Two years old—None exhibited.—Yearlings—1. No award—2. Wm. A. Keese, \$10.—Calves—1. E. Corning, jr., \$10.

Cows—Over three years old—1 and 2. E. Corning, jr., \$25 and \$15—3. W. A. Keese, \$5.—**HEIFERS**—Two years old—1. No award—2. W. A. Keese, \$10.—Calves—1. No award—2. W. A. Keese, \$3 and Trans.

AYRSHIRES.

BULLS—Over three years old—1. E. P. Prentice, Albany, \$25—2 and 3. No award.—Two years old, and yearlings—None exhibited.—Calves—1. E. P. Prentice, \$10.

Cows—Over three years old—1 and 2. E. P. Prentice, \$25 and \$15.—**HEIFERS**—Two years old—1. J. McD. McIntyre, Albany, \$20—2. E. P. Prentice, \$10.—Calves—1 and 2. E. P. Prentice, \$10 and \$3 and Trans.

NATIVE AND CROSS-BREDS.

Cows—Over three years old—1. D. H. Albertson, Lima, \$20—2. Thomas Bell, Morrisania, \$12—3. Isaac Sheldon, Sennett, \$4.—**HEIFERS**—Two years old—1. Thos. Bell, \$15—2. Isaac Sheldon, \$10—3. Joseph Haswell, \$3.—Yearlings—1. F. B. Leonard, Rensselaer county, \$10—2. Joseph Haswell, \$8—3. Thos. Bell, \$3.—Calves—1. John Lossing, Albany, \$3—2. Milton Knickerbacker, Schodac, Trans.—Commended—Three heifers three years old, and one two years old, offered by John Townsend, Albany, one three years old by Thos. Bell, one by Joseph Haswell, and one two years old by John M. Mott, Lansingburgh.

WORKING OXEN.

OXEN—Over four years old—Best team from any town, W. Streever, Kinderhook, \$25—best single yoke, Jas. S. Wadsworth, Genesee, \$20—2. Elon Sheldon, Sennett, \$15—3. John P. Beckman, Kinderhook, \$5.—Special awards for single yokes—R. Mesick, Kinderhook, \$5—J. B. H. Church, Vernon, \$5—Arden Woodruff, \$5—J. H. Sherrill, New Hartford, \$5—John Brydon, Westmoreland, \$5—H. B. Bartlett, Paris, \$5—Jos. Haswell, \$5.

STEERS—Three years old—Single yoke—1. John Muir, sen., \$10—2. B. H. Streeter, Clyde, \$8—3. Jas. S. Wadsworth, \$3 and Trans.—Special premium to Elon Sheldon, \$5.

STEERS—Two years old—1. S. A. Gilbert, Hamilton, \$10—2. B. Benedict, Genesee, \$8—3. Jas. H. Sherrill, \$3 and Trans.

To boys under sixteen, for training steers—1. John N. Benedict, Alexander, silver medal—2. Henry Comstock, Clinton, \$3 and Trans.—Special awards—To S. A. Gilbert, for training steers, \$2—Jas. S. Wadsworth, for a pair of steers, (unbroken) \$5.

STEERS—One year old—Single yoke—1. J. H. Sherrill, \$8—2. S. A. Gilbert, \$5—3. Jas. D. Van Vechten, Schodac, \$3 and Trans.—Special awards—Lewis E. Smith, Half-Moon, vol. Trans.

To boys under sixteen, for training steers—1. S. A. Gilbert—2. J. H. Sherrill, \$3 and Trans.

MILCH COWS.

S. P. Chapman, \$20.

FAT CATTLE—STALL FED.

OXEN—Best pair over four years old—1. Edward Munson, Sennett, (weight 5,267 lbs.) \$25—2. A. Ross, Preston, (weight 4,112½ lbs.) \$15—3. John H. Boyd, (weight 4,017½ lbs.) \$10.

SINGLE OX—Over four years old—1 and 2. Jas. S. Wadsworth, (weights 2,247, and 2,197½ lbs.) \$15 and \$10.—Commended—A. Osborn, Watervliet.

Cows—Over four years old—1. J. M. Sherwood, (weight 1,765 lbs.) \$15—2. Aaron Taylor, Alden, (weight 1,555 lbs.) \$10.

FAT STEERS—1. Elon Sheldon, \$10—2. Milton Knickerbacker, \$6.

FAT CATTLE—GRASS FED.

OXEN—Over four years old—1. Elon Sheldon, \$20—2. J. H. Sherrill, \$12—3. Hiram Sheldon, Sennett, \$8.

FAT STEERS—1. Jas. S. Wadsworth, \$12.

Cows—Over four years old—1. Luke Putnam, Warsaw, \$10—2. Geo. Vail, \$6—3. G. Lee, Cambridge, \$4.

HEIFERS—Three years old—1. Joseph Haswell, \$8—2. Elon Sheldon, \$3.

FAT SHEEP.

LONG-WOOLED—Over two years old—1. No award—2. Richard Gyson, Oneida county, \$3.—**MIDDLE WOOLED**—Over two years old—1. J. M. Sherwood, \$5—2. Z. B. Wakeman, Herkimer, \$3—3. J. McD. McIntyre, Morrell's "Shepherd."—Special awards—For middle-wooled lambs, Richard Gyson, Trans.—for fat sheep, E. R. Dix, Vernon, Trans.

FOREIGN STOCK.

SHORT-HORNS—BULLS—1. George Miller, Markham, C. W., \$25 and Dip.—Paoli Lathrop, South Hadley, Mass., \$15.—Calves—Geo. Miller, Dip.

Cows—1. No award—2. Geo. Miller, Canada West, \$15.

DEVONS—BULLS—1. Lemuel Hurlbut, Winchester, Ct., \$25 and Dip.—2. W. R. Sanford, Orwell, Vt., \$15—3. Wm. L. Cowles, Farmington, Ct., \$5.—Yearlings—Wm. L. Cowles, \$15.—Calves—Wm. R. Sanford, \$10.

Cows—1. Wm. L. Cowles, \$25 and Dip.—2. Lemuel Hurlbut, \$15—3. Wm. L. Cowles, \$5.—Yearling Heifers—1. Wm. L. Cowles, \$15.—Calves—1. L. Hurlbut, \$10—2. Wm. L. Cowles, Trans.

AYRSHIRES—BULLS—1. R. L. Colt, Patterson, N. J., \$25 and Dip.—2. No award—3. E. W. Woodford, Avon, Ct., \$5 and Trans.

Cows—1. R. L. Colt, \$25 and Dip.—Heifers—R. L. Colt, Dip.

ALDERNEYS—BULLS—1. R. L. Colt, \$25 and Dip.

Cows—1. R. L. Colt, \$25 and Dip.

HUNGARIAN CATTLE—BULL AND HEIFER—R. L. Colt, Dip.

SHORT-HORN AND DEVON BULL—Jonathan Baldwin, Berkshire, Vt., Dip.

WORKING OXEN—Wm. L. Cowles, \$20—Lemuel Hurlbut, \$15.

HORSES.

ALL WORK—STALLIONS—Over four years old—1. I. T. Grant, Schaghticoke, \$20—2. John L. Bennett, Montgomery county, \$12—3. C. Canfield, Poughkeepsie, \$8—4. Foster Breed, Crown Point, Youatt—Wm. Streever, whose horse has heretofore received a premium, Dip.

MARES—1. E. Corning, jr., \$20—2. G. Van Olinda, Watervliet, \$12—3. P. F. Mesick, Columbia county, \$8.

DRAUGHT HORSES—STALLIONS—1. Joel Young, New Scotland, \$20—2. W. A. Keese, \$12—MARES—Wm. Bullock, Bethlehem, \$20.

THOROUGH-BRED HORSES—STALLIONS—1. Mortimer De Mott, New York, \$20—2. O. K. Lapham, Keeseville, \$12.—Commended—Horse "Consternation," owned by J. B. Burnet, Syracuse, which received the first premium in 1849, recommended a special premium, and horse "Lance," owned by W. W. Huff, Buffalo, which received the first premium in 1849, recommended a Diploma.

HORSES—THREE YEARS OLD.

STALLIONS—1. Philip Hornbeck, Rochester, Ulster county, \$15—2. A. H. Jaquith, Fonda, \$10—3. Harvey Kimberly, Columbia county, Youatt—4. William Hunter, Watervliet, Trans.

MARES—1. J. D. Kingsland, Clinton county, \$15—2. Peleg Cross, jr., Columbia county, \$10—3. John M. Taylor, Otsego county, Youatt—4. John McCormick, Bethlehem, Trans.

TWO YEAR OLDS—STALLIONS—Garret Van Olinda, Watervliet, \$10—2. John Muir, sen., Hamilton, Youatt—3. Isaac Brink, Greenbush, Trans.

MARES—1. I. T. Grant, \$10—2. S. A. Gilbert, Youatt—3. Daniel J. Day, Granville, Trans.

YEARLING COLTS—1. Wm. Streever, Kinderhook, \$5—2. Isaac Hoag, Easton, Youatt—3. Abraham Oliver, New Scotland, Trans.

MATCHED HORSES—FOR CARRIAGES.

1. J. B. Plumb, Albany, \$15 and Dip.—2. W. C. Durant, Albany, \$10—3. T. S. Faxton, Ulica, \$8—4. John B. Borst, Mont'y co., \$5.

MATCHED HORSES—FOR DRAUGHT.

1. John Butterfield, Ulica, \$10—2. Jagger, Treadwell & Perry, Albany, \$8—3. — Truax, Albany, \$5—Silver medal recommended to Reynolds & Wort, New York, for a pair of mules.

SINGLE HORSES—GELDINGS.

1. Lewis E. Smith, Mechanicsville, \$10 and Dip.—2. Theodore S. Faxton, \$8—3. Nathan Morgan, Victor, \$6—4. Silas W. Tobey, Hudson, \$4.

FOREIGN HORSES.

STALLIONS—Thorough-bred—Thos. Leach, Canada West, \$20 and Dip.—All work—1. Wm. Walker, Hartland, Vt., \$20 and Dip.—2. Amos Bigelow, Bridport, \$10.—Draught—1. Elisha Norton, Chelsea, Vt., \$20 and Dip.—2. David Laurent, Canada, \$10.

MARES—Wm. L. Cowles, Farmington, Ct., \$20 and Dip.

MATCHED HORSES—Andrew Holmes, Addison, Vt., \$10—2. B. B. Foss, Chelsea, Vt., \$10.—Certificate to L. D. Harlow, Hartland, Vt., whose horse "Grey Hawk" received the first premium in this class in 1849.

SHEEP.

LONG WOOLED—RAMS—Over two years old—1. Winant Younghans, Sandlake, \$10—2. John A. Rathbun, Otsego co., \$8—3. John C. Collins, \$5.—Under two years old—1. B. J. Hays, Montgomery county, \$10—2. Richard Gyson, Oneida co., \$8—3. B. J. Hays, \$5.

EWES—Over two years old—1. John A. Rathbun, \$10—2. Winant Younghans, \$8—Wm. Rathbun, \$5.—Under two years old—1. John A. Rathbun, \$10—2. J. C. Rathbun, \$8—3. E. Seace, Watervliet, \$5.

LAMBS—Rams—Winant Younghans, \$8—2. Wm. Rathbun, \$3 and Morrell's "Shepherd."—Ewes—1. Winant Younghans, \$8—2. John A. Rathbun, \$3 and Morrell's "Shepherd."

MIDDLE WOOLED—RAMS—Over two years old—1. J. M. Sherwood, \$10—2 and 3. (\$13) equally divided between F. M. Rotch and J. McD. McIntyre.—Under two years old—1. Z. B. Wakeman, Herkimer, \$10.

EWES—Over two years old—1. J. M. Sherwood, \$10—2. F. M.

Rotch, \$8-3. Z. B. Wakeman, \$5.—*Under two years old*—1. Z. B. Wakeman, \$10-2. J. McD. McIntyre, \$3.

LAMBS—*Rams*—1. Z. B. Wakeman, \$8-2. J. McD. McIntyre, \$3 and M.'s Shepherd.—*Ewes*—1. Z. B. Wakeman, \$8-2. J. McD. McIntyre, \$3 and M.'s "Shepherd."

MERINOS—*Rams*—*Over two years old*—1. N. M. Dart, Harpersfield, \$10-2. Orrin Lathrop, Darien, \$8-3. Joseph Haswell, \$5.—*Under two years old*—1. L. H. Yates, Darien, \$10-2. L. G. Collins, \$8-3. J. M. Sherwood, \$5.

Ewes—*Over two years old*—1. R. E. Keese, Ausable, \$10-2. L. H. Yates, \$8-3. F. M. Rotch, \$5.—*Under two years old*—1. L. G. Collins, \$10-2. R. E. Keese, \$8-3. N. M. Dart, \$5.

LAMBS—*Rams*—1. L. G. Collins, \$8-2. R. E. Keese, \$3 and M.'s "Shepherd."—*Ewes*—R. E. Keese, \$8-2. L. G. Collins, \$3 and M.'s "Shepherd."

SAXONS—*Rams*—*Over two years old*—1. S. H. Church, Vernon, \$10-2. Ransom & Baker, Hoosick, \$8-3. Joseph Haswell, \$5.—*Under two years old*—1. S. H. Church, \$10-2. Ransom & Baker, \$5.

Ewes—*Over two years old*—1. S. H. Church, \$10-2. Joseph Haswell, \$8.—*Under two years old*—1. S. H. Church, \$10-2. Ransom & Baker, \$8-3. Frederick Phelps, Schodac, \$5.

LAMBS—*Rams*—1. Ransom & Baker, \$8-2. Joseph Haswell, \$3 and M.'s "Shepherd."—*Ewes*—1. Jos. Haswell, \$8-2. Ransom & Baker, \$3 and M.'s "Shepherd."

SAMPLE OF WOOL—*Ten fleeces*—John P. Beekman, Kinderhook, Silver medal.

SHEPHERD'S DOG—1. J. Campbell, Middlebury, Vt., \$5-2. Robt. Middemist, West-Meredith, Morrell's "Shepherd."

NATIVE AND GRADES—*Rams*—*Over two years old*—1. No award—2. D. S. Curtis, Canaan, \$8.—*Under two years old*—1. D. S. Curtis, \$10-2. R. C. Derrick, \$8.

Ewes—*Over two years old*—1. D. S. Curtis, \$10-2. E. R. Dix, Vernon, \$8.—*Under two years old*—1. No award—2. D. S. Curtis, \$3 and M.'s "Shepherd."

LAMBS—*Rams*—1. No award—2. D. S. Curtis, \$3 and M.'s "Shepherd."—*Ewes*—1. Richard Gypson, \$8-2. D. S. Curtis, \$3 and M.'s "Shepherd."

FOREIGN SHEEP.

LONG WOOL—*Rams*—1. Wm. Miller, Markham, C. W., \$10.—*Ewes*—Wm. Miller, \$10.

MIDDLE WOOL—*Rams*—Wm. Miller, \$10.—*Ewes*—Wm. Miller, \$10.—*Lambs*—Wm. Miller, \$5.

MERINOS—*Rams*—John Campbell, \$10.—*Ewes*—Jesse Hinds, Brandon, Vt., \$10.—*Ram Lambs*—Geo. Campbell, Westminster, Vt., \$5.—*Ewe Lambs*—Geo. Campbell, \$5.

SAXONS—*Rams*—C. B. Smith, Wolcottville, Ct., \$10.—*Ewes*—C. B. Smith, \$10.—*Ram Lambs*—Geo. Campbell, \$5.

SWINE.

BOARS—*Over one years old*—1. Winant Youngmans, \$10-2. Jas. P. Noxon, White Creek, \$5.—*Over six months and under one year old*—1. Wm. Webb, Darien, \$8-2. Wm. Comstock, Laurens, \$3.

Sows—*Over two years old*—1. Wm. Comstock, \$10-2. Wm. Hurst, Albany, \$5.—*Over six months and under one year*—Wm. Hurst, \$8.

PIGS—*Under ten months old*—R. C. Derrick, \$10.—*Special premium* to Samuel Morgan, Watervliet, \$3.

POULTRY.

BEST LOT—John Chadwick, New Hartford, \$10.

DORKINGS—F. M. Rotch, \$3.

POLANDS—M. D. Wands, Lansingburgh, \$3.

MALAYS OR CHITTAGOONS—E. E. Platt, Albany, \$3.

SHANGHAES—R. L. Colt, Patterson, N. J., \$3.

BANTAMS—E. E. Platt, \$3.

SPECIAL AWARDS—**SILVER TOP-KNOTS**—E. E. Platt, \$3.

SHANGHAES—B. B. Birtland, Greenbush, \$3.

BLACK JAVAS—Dudley Walsh, Bethlehem, \$3.

CHINAS, AND **CROSS-BRED DORKINGS** AND **MALAYS**—J. M. Lovett, Albany, \$3.

CURRASSOW—E. E. Platt, \$3.

TURKIES—R. L. Colt, \$3.

MUSCOVY DUCKS—R. L. Colt, \$3.

COMMON DUCKS—Wm. Robson, \$3.

LARGE GESE—L. F. Allen, Buffalo, \$3.

WILD GESE—Edward Van Alstyne, Greenbush, \$3.

BREMEN GESE—Wm. Robson, \$3.

CHINA GESE—R. L. Colt, \$3.

RABBITS—R. H. Van Rensselaer, \$3.

FAWNS—Aaron Sturges, Hamilton county, \$3.

PLOWS.

SOD PLOW FOR STIFF SOIL—1. Prouty & Mears, Boston, "Centre Draft No. 30," \$15 and Dip.—2. Miner & Horton, Peekskill, "No. 21," \$10.

SOD PLOW FOR LIGHT SOIL—1. Prouty & Mears, "Centre Draft No. 25," \$15 and Dip.—2. W. U. Chase, Amsterdam, "No. 7," \$10.

PLOW FOR FALLOW, OR OLD LAND—1. Prouty & Mears, "Centre Draft No. 5," \$10 and Dip.—2. Miner & Horton, "Peekskill No. 21," \$8.

SUB-SOIL PLOW—Prouty & Mears, \$8 and Dip.
SIDE-HILL PLOW—Bosworth, Rich & Co., Troy, \$8 and Dip.
SPECIAL AWARD—Newell French, Rome, "Michigan Sod and Sub-soil," \$15 and Dip.

PLOWING MATCH.

1. S. S. Smith, Stillwater, \$10-2. John Randerson, Schodac, \$8-3. Newell French, Rome, \$5-4. Eddy & Co., Union Village, Trans.

FARM IMPLEMENTS, No. 1.

FARM WAGON—Christopher Snyder, West Sandlake, \$5.

HARROW—J. & R. Downer, Castleton, \$3.

CULTIVATOR for corn—Emery & Co., Albany, \$3.

FANNING MILL—I. T. Grant & Co., Schaghticoke, \$5.

CORN-STALK CUTTER—Reuben Daniels, Woodstock, Vt., \$5.

STRAW CUTTER—Wm. Hovey, Worcester, Mass., \$3.

COB-CRUSHER by horse power—Emery & Co., \$5.

HORSE CART—M. O'Brien, Albany, \$3.

OX-YOKER—Emery & Co., \$2.

SPECIAL AWARDS—"Oscillating Roller Axle,"—S. H. Mix, Schoharie, small Silver medal and Dip.—*Road Wagon*—Gardner Mix, Schoharie, small Silver medal.—*One or two-seated Wagon*—Long & Silsby, Albany, Silver medal.—*Barouche and Buggy*—Lown & Barker, Troy, Silver medal.—*Lawrence Coach, Covered Sleigh, Open two-seated Sleigh, and One Horse Sleigh*—James Gould & Co., Albany, Silver medal and Dip.—*Omnibus*—Eaton & Gilbert, Troy, small Silver medal.—*Roller*—Emery & Co., \$5.—*Articles for General and Gardening Purposes*—Emery & Co., Silver medal.

FARM IMPLEMENTS, No. 2.

CARRIAGE HARNESS—Lyman J. Lloyd, Albany, Sil. medal.

CHURN—Emery & Co., "Thermometer Churn with Compressing Dash," \$2.

CHEESE PRESS—Hez. Rogers, Clifton Park, \$2.

GRAIN CRADLE—Nichols & Baley, Van Buren Centre, \$2.

HAND RAKES—David Ray, Chatham, \$2.

GARDEN RAKES—S. C. Blair, Farmington, Ct., Dip.

HAY FORKS, MANURE FORKS, STRAW FORKS, GRASS SCYTHES, CRADLE SCYTHES, \$2 each—D. J. Millard, Paris, Oneida county.

HAY RIGGING—W. P. Coonrad, Brunswick, \$2.

SPECIAL AWARDS—"Lady's Saddle"—L. J. Lloyd, Dip.—*Saddle*—E. B. Slason, Albany, Dip.—*Grass Scythes and Snathes*—Draper, Brown & Chadsey, Troy, \$2.—*Butter Ladles and Prints*—Paul Seeley, Morris, Otsego county, \$2.—*Shovels and Spades*—Emery & Co., \$2.—*Potato Diggers*—H. Partridge & Son, Medford, Mass., \$2.—*Cast-Steel Hoes*—S. P. Reynolds, Unadilla Forks, \$2.—*Drawing Knives*, worthy particular notice—Emery & Co.

FARM IMPLEMENTS, No. 3.

HORSE POWER, on sweep or level principle—Eddy & Co., Union Village, for Taplin's, \$5 and Dip.

HORSE POWER, on endless-chain principle—Emery & Co., \$5 and Dip.

THRESHER, to be used with horse or steam power—Eddy & Co., \$5 and Dip.

SEED PLANTER, for hand or horse power—J. P. Groshon, Yonkers, \$3 and Dip.

GRAIN DRILL—P. Seymour, East Bloomfield, Dip.

BROADCAST SOWER—P. Seymour, Dip.

CULTIVATOR, for wheat—Enoch Sweet, Brockport, Dip.

PORTABLE SAW-MILL—Emery & Co., Dip.

CORN SHELLER, for hand power—Emery & Co., Dip.

VEGETABLE CUTTER—V. H. & N. Hallook, Milton, Dip.

BEST AND MOST NUMEROUS COLLECTION OF IMPLEMENTS MADE IN THE STATE—Emery & Co., \$20 and Dip.

MACHINERY AND IMPLEMENTS, No. 4.

STEAM ENGINE for AGRICULTURAL PURPOSES—Hoard & Bradford, Watertown, \$25 and Silver medal.

VALVE FOR ENGINE—S. P. Winne, Albany, Silver medal.

ROTARY SEWING MACHINE—Lerow & Blodgett, N. Y., Sil. medal.

BRICK-MOULDING MACHINE—Baker & Gifford, Troy, Dip.

DAIRY STEAMER—Harvey Bushnell, Utica, Dip.

CORN-STALK AND STRAW CUTTERS—E. J. Burrall, Geneva, Ontario county, Silver medal.

KNIVES for STRAW CUTTERS, of different construction—Wm. Hovey, Worcester, Mass., Silver medal.

WASHING MACHINES—Van Tuyle & Coons, Lansingburgh, for King's, Dip.

SEED SOWER, with Plow attached—Sam. Davidson, Greece, Dip.

SPRING-TOOTH HARROW, attached to Broadcast Sower—S. S. Sage, Windsor, Broome county, Dip.

MOWING MACHINE—G. W. Allen & Co., Buffalo, for Ketchum's, Dip.

WINNOWER MACHINE—Albert Bates, Shanesville, Ohio, for Sanders', Silver medal.

RAKE for couch, or quack grass roots—S. Cheever, Bemis Heights, small Silver medal.

SEED DRILL—Wm. H. Carr, Philadelphia, Pa., for Crossdale's, small Silver medal and Dip.

WATER FILTERER—Gideon Myers, Little Falls, Dip.

DOG POWER for Churn—Bosworth, Rich & Co., Troy, small Silver medal.

APPARATUS FOR CONNECTING WHEEL-HUBS—Billings & Ambrose, Claremont, N. H., Silver medal.

BUTTER.

25 lbs. made in June—1. D. H. Cary, Albany, \$10-2. Dow Fonda, Perth, Fulton county, \$5-3. Joseph Cary, Albany, Trans.

50 lbs. made at any time—1. Jos. Cary, \$15-2. Philip Lasher, Saratoga county, \$10-3. Jonas Lashes, Saratoga county, \$5-4. Jas. P. Noxon, White-Creek, Trans.

Made by Girls under twenty-one years of age—1. Catherine Lasher, Saratoga county, Silver Milk-Cup—2. Henrietta Coons, Brunswick, pair of Silver Butter-Knives—3. A. E. Hall, New-Lebanon, set Silver Tea-Spoons.

Coarse Salt—E. Clarke, Syracuse, Dip.

Ground Solar Salt—J. P. Haskell, Syracuse, Dip.

CHEESE.

100 lbs. over one year old—D. C. Beard, Buffalo, \$10.

Less than one year old—1. Hildreth & Brother, Herkimer, \$15-2. Sylvester Burchard, Hamilton, Mad. county, \$10-3. Fox & Colton, Warsaw, Herk. county, \$5-4. Robt. Eells, Clinton, Trans.

Imitation English Cheese—James Lineale, Princeton, Schen. co., Trans.—*Pine-Apple Cheese*—John A. Clark, Albany, Trans.

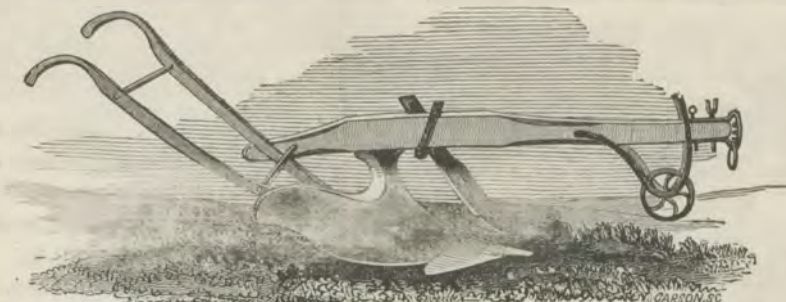
SUGAR.

1. I. Burr, Meredith, Del. co., \$10-2. S. McGraw, McGrawville, \$5-3. H. F. Shepard, Lawrenceville, \$3-4. E. R. Dix, Vernon, Trans.—Commended—Specimen offered by J. Hinds, Brandon, Vt.

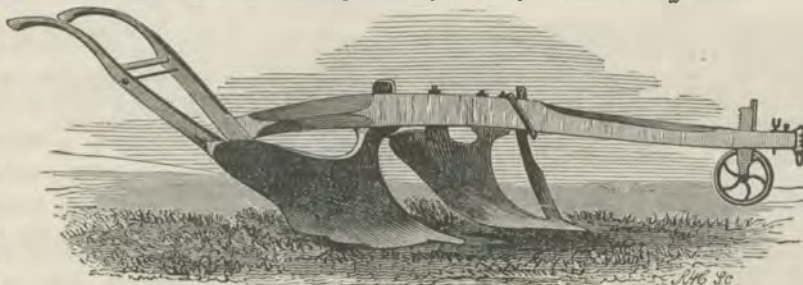
NEW YORK STATE PREMIUM PLOWS.



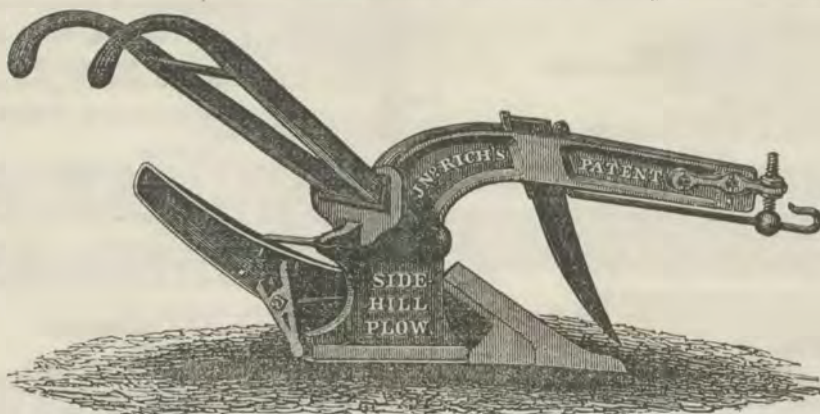
Prouty & Mears' Centre Draft, No. 5½:
Which received the first premium for fallows and old land.



Miner & Horton's Peekskill, No. 21:
Which received the second premium for both fallows and stiff soils.



French & Smith's Michigan Sod and Sub-soil:
Which received a special premium for fallows and stiff soils.



Bosworth, Rich & Co.'s Side-Hill:
Which received the first premium for side-hill plowing.

☞ Cuts of the other Premium Plows will be given in our next.

The Farmer's Note-Book.

New-York State Fair at Albany.

THE Tenth Annual Show and Fair of the New-York State Agricultural Society, was held near this city, according to appointment, during the 3d, 4th, 5th and 6th days of last month. It was another grand gathering of the leading farmers, or perhaps we might with more propriety say, the leading *citizens* of the Empire State, with multitudes of our brethren from other States and the adjoining British Provinces. The number of visitors was greater than at any previous exhibition. This is sufficiently proved by the receipts for admission, which reached \$10,465.61. The greatest amount received in any previous year, was \$8,144.55, taken at Syracuse in 1849. A heavy rain occurred on the day and night preceding the opening of the exhibition, and another on Thursday night following, which doubtless prevented the attendance of some who would otherwise have been present. The rains completely saturated the ground with water, which occasioned some inconvenience; but as an offset to this, they prevented the rising of dust, which, if continued dry weather had prevailed, would have been a great annoyance.

Much credit is due the various railroad companies in this State, for the facilities they afforded the public in attending the fair. They all gave half-price tickets during the week, and carried stock and articles intended for competition, gratis. This is a liberal plan, which we believe gave entire satisfaction, and it has, also, well rewarded the owners of the roads. We are sorry to say that the directors of the road between this city and Boston, but partially adopted this plan. Had they pursued the same course as the New-York roads, the number of visitors from the East would have been greatly increased, and the road would have made, in the aggregate, a much greater amount of money. We presume this latter fact will not in future be overlooked by men who have the general reputation of shrewdness.

Considered in reference to itself, and as a whole, this exhibition may be said to have fully equalled any former one. If, in some of the departments, a deficiency existed, it was amply made up by the fullness and richness of others. The whole number of entries was greater than on any former occasion. The number for horses was 286, cattle 475, sheep 567. The horses and most of the cattle were stationed in sheds provided for them. This shelter was necessary to protect them from the hot sun, to which they must have been otherwise exposed. But in regard to the appearance of the show, it had an unfavorable effect, as it completely withdrew from observation most of the animals which usually constitute so prominent and attractive a feature in displays of this kind.

The occasion has been, generally, one of high gratification; it has afforded the means of obtaining much valuable information, not attainable in any other way, in regard to the various objects brought together; and the vast assemblage collected and dispersed without the occurrence of any accident to lessen their enjoyment.

The people are beginning to look upon these exhibitions in their proper light. On the part of competitors, the principal benefit is not the taking of prizes; it is the opportunity of bringing their animals or articles prominently to the notice of thousands of persons to whom they would otherwise

never be known. The objects are not only seen, but they are *compared*, and by comparison, their relative defects or excellencies are made apparent. It is in this way, only, that correct knowledge can be obtained. A farmer, who breeds any kind of live stock, can form no safe opinion of its actual value, without comparing it with other stock of the same breed. So, too, of the mechanic, in reference to his various productions; and in every branch of industry, improvement can only be estimated by comparison.

Nor is the advantage of comparison of less consequence to purchasers than producers. In procuring a horse, a cow, a yoke of oxen, or a plow or other implement or article, it is, of course, desired that it should possess the properties which would fit it most perfectly for the purpose to which it is to be applied; and by having side by side the various descriptions, a discriminating eye is able to select the best, with almost infallible certainty. These advantages are distinct and independent of the awards of premiums. The people, so far as they have the opportunity of seeing for themselves, generally form their own opinions, and are but little influenced by the decisions of others.

HORSES.—The display of horses was hardly equal in respect to *quality*, to the shows of the two preceding years; yet there were noble specimens in the different classes. In blood horses there was but little competition. Among those on the ground, we noticed the celebrated "Trustee," the sire of the famous running mare "Fashion." Though bearing evident marks of age, he still shows some excellent points. His head and eye have the striking lineaments and expression so justly admired in the Arabian horse; his limbs are clean and sinewy; the fore leg, in particular, is remarkable for the length of arm, and for the width and shortness of the shank. "Leopard," an imported horse, owned by O. K. Lapham, of Keeseville, is an animal of much nerve and fire; rather tall, and somewhat light in the forehand for hard work and endurance, but not too much so for a racer. "Consternation," now owned by Mr. Burnet, of Syracuse, has heretofore received the first premium in this class, and is a horse of well-deserved reputation. "Young Alexander," owned by Mr. Ireland, has also received the first premium as a blood-horse, and attracted here, as on former occasions, much attention.

In the class of "all work," we noticed the well-known "Morse's Grey." Several of his progeny were also on the ground, which did credit to the sire. The young horses by the celebrated Vermont Black-Hawk, shown by Messrs. Felton, of Ticonderoga, Breed, of Crown Point, and Bigelow, of Bridport, Vt., were animals of fine appearance, and good action.

Among "draught horses" was a stallion owned by Joel Young, of New Scotland, got by the imported horse "Sampson," and another owned by Wm. A. Keese, of Keeseville, by the same sire, both of which were good specimens of this class of horses, as was also a five-year-old mare of the same stock, weighing 1400 lbs, exhibited by E. Corning, Jr., of Albany.

There were several pair of handsome matched horses. Those of Mr. Plumb, of this city, and Mr. Faxton, of Utica, were much admired.

Among the young horse stock deserving particular notice, was a pair of yearling geldings, owned by Wm. B. Seymour, of Clinton, Oneida county.

CATTLE.—There was a greater number of cattle exhibited, than for several previous years. The fat cattle were not as numerous as at Syracuse, and the

Devons were not out in so great numbers. There was more competition in Short-horns, and they were in general of better quality than they have been for several previous years. The most extensive exhibitors of Short-horns, were Messrs. Vail of Troy, Sherwood of Auburn, Rotch of Butternuts, Hillhouse of Watervliet, and Chapman of Clockville. There were other competitors who showed in less numbers. Col. Sherwood's "3d Duke of Cambridge," and several other animals shown by him, imported during the past and present season, are very superior specimens of Short-horns. The bulls of Mr. Thorpe of Albany, Mr. Vail of Troy, Mr. Chapman of Clockville, Mr. Lathrop of Massachusetts, Mr. Miller of Canada, were animals of much merit, each of which had their respective advocates. Two young bulls, lately imported, shown by Lorillard Spencer, Esq., of Westchester county, were among the best animals in this class. They were of good size and form, and evidently of thrifty habit. There were many excellent cows. Among several, it must have been difficult for the committee to apportion the awards. The red cow of Mr. F. M. Rotch, two of Mr. Hillhouse's cows, Mr. Vail's "Esterville 2d," Col. Campbell's, and one or two of Col. Sherwood's, were all fine cows.

The display of Herefords was smaller than last year—there being but fifteen of this breed on the ground. There were among them some first-rate animals. The four-year-old bull shown by W. A. Keese, of Peru, was in all points a beautiful and good animal. Mr. E. Corning, Jr., of Albany, also exhibited a good bull and several cows, and some young stock. His cow, "Victoria," will compare favorably with almost any cow we have ever seen, and without intending any invidiousness, we think she was not excelled by any on the ground, in respect to a combination of useful qualities. Mr. Keese's "Matilda" is also a very valuable cow. In this class, we missed the usual display by Mr. Sotham, of Black Rock.

The Devons were not equal in numbers to the show of last year, but as to quality, were not inferior to any former show. Among the bulls, we noticed "Major," purchased at the Syracuse fair of Mr. Gapper, of Canada, by R. H. Van Rensselaer, of Butternuts. This animal still maintains the appearance and qualities for which he has heretofore received much merited commendation. "Bloomfield," shown by Mr. Hurlbut, Winchester, Ct., is a beautiful and valuable bull; and the bulls shown by Mr. Sanford, of Orwell, Vt., and Mr. Cowles, of Farmington, Ct., were fine. Very fine cows and young stock were shown by E. P. Beck, of Sheldon, Wyoming county, H. N. Washbon, Butternuts, L. C. Collins, of Dutchess county, Mr. Hurlbut and Mr. Cowles, of Connecticut. Mr. Beck's display was less in extent than usual, from his having lately sold a lot of fine animals to the Governor of Wisconsin.

The Ayrshires shown were chiefly from Mr. Prentice, of Albany, and Mr. R. L. Colt, of Paterson, N. J. Among them were excellent stock for the dairy. A bull of a fine dairy tribe, was shown by Mr. Woodford, of Avon, Ct.

Mr. Colt exhibited a heifer and bull lately imported from Hungary. They are of good size for their age, and their skins possess good handling quality. Their form has nothing in particular to commend, though their limbs are good, and they are said to be fast walkers. Their color is iron-grey, and their general characteristics indicate that they are a very distinct and pure breed.

Mr. Colt also exhibited an Alderney or Jersey cow, a most delicately formed and deer-like animal

—just such a cow as with constant care as to shelter and feeding, would afford a large amount of cream and butter.

The number of cattle shown as "grades," was much greater than we have seen at any former exhibition. They were chiefly cows and heifers, and among them were many of excellent quality. Deserving special notice, was a cow, four years old, the produce of a "Connecticut cow," by the imported short-horn bull "Marius." She was owned by Thomas Bell, of Morrisania, Westchester county. She appeared to combine, with the most faultless symmetry, nearly every point indicative of perfection in a dairy cow. Several fine heifers of the same stock were shown by Mr. Bell. The cows and heifers of John Townsend, of Albany, and those shown by Isaac Sheldon, of Auburn, were evidently valuable stock.

The fat cattle comprised several fine animals. The four-year-olds shown by Mr. Wadsworth, were decidedly the best of their age that we have ever seen. Indeed we heard it remarked by experienced judges, that they exceeded in symmetry and lightness of offal, any cattle which had ever come to their notice. A four-year-old shown by Mr. Sheldon, of Sennett, was of fine form, and with the advantage of another year, will be well developed. A fat Durham cow, owned by Ambrose Stevens, of New-York, was remarkable for lightness of offal and weight in the most valuable parts.

The working oxen made a good appearance. We saw none of them tried at a load, and cannot say whether or not they were subjected to a trial of this kind. Five yoke of fine cattle were shown by J. S. Wadsworth, and a team of ten yoke, several of which were fine, from Kinderhook, by J. P. Beekman. There were many fine steers, of one, two, and three years old. We noticed, as very superior, both the two-year olds and yearlings shown by S. A. Gilbert, of East Hamilton, and admirably broken and trained by S. A. Gilbert, 2d, a lad fifteen years old. The yearlings were calved the 5th of April, 1849, and weighed at the time of the show, 2200 lbs. They are of almost unexceptionable form.* They were a cross of the Short-Horn and Devon,—the color being that of the latter. A very fine pair of two-year-old steers, a cross of Short-Horn and Devon, were shown by B. Benedict, of Alexander, Genesee county. They were broken and trained, in the most perfect manner, by Jervis P. Benedict, fourteen years old.

SHEEP.—The show of sheep may be said to have been quite superior. The large Merinos, commonly known as the "Taintor stock," were shown by Messrs. Bingham, of Vermont, F. M. Rotch, of Butternuts, and L. C. Collins, of Dutchess county. Other Merinos were shown by Col. Sherwood, H. M. Dart, Harpersfield, R. E. Keese, Ausable, J. Hinds, J. S. Pettibone, John Campbell and George Campbell, all of Vermont.

Of Saxons, very superior specimens were shown by C. B. Smith, Woolcottville, Ct., of the stock imported by Smith & Catlin, from Germany. We have on a former occasion expressed a favorable opinion of these sheep. This opinion is fully supported, so far, and we think will continue to be, by the success of the stock in this country. S. H. Church, of Vernon, showed Saxons from his well known flock.

Of Long-Wooled Sheep, the number of really well-bred ones was not large. Mr. Rathbun, of Otsego county, showed some good sheep. But the Leices-

* These and the two-year-olds shown by Mr. Gilbert, and the three-year-olds of Mr. Muir, which received the first premium, were sold to Hon. B. V. French, Braintree, Mass.

ters, shown by Messrs. Geo. & Wm. Miller, of Markham, C. W., were the principal attractions in this department. Some of the ewes shown by Wm. Miller, were in form almost perfect models of what a mutton sheep should be; and it is to be hoped that our breeders of this class of sheep, have derived some useful hints from the fine specimens which have been thus brought before them.

The South Downs made a very good show. They were chiefly from the flocks of Messrs. Sherwood, Rotch, McIntyre and Wakeman. There were good animals in each of these lots. The fat wethers of Col. Sherwood, and several cross-bred South Down and Cotswold wethers shown by Mr. McIntyre, were capital specimens, and did not fail to attract the attention of those who know good mutton.

SWINE.—This department was not well filled. In numbers, it was less extensive than at any former show for several years, and we saw no animals of remarkable appearance. Some good pigs were shown by Wm. Hurst, of this city, and by Winant Youngmans, and Wm. Webb, of Darien.

POULTRY.—There was a much better display of poultry than at Syracuse, though it was hardly equal to the show at Buffalo. Much of the good appearance of this department, was due to R. L. Colt, Esq., of Paterson, N. J., who exhibited specimens of four kinds of geese, and several varieties of fowls. E. E. Platt, of this city, showed a collection of fowls, embracing several valuable breeds. Mr. P. had also a fine specimen of the curassow. Fine specimens of the Dorkings were shown by F. M. Rotch, Butternuts, and very handsome specimens of the Spangled Hamburg or Bolton Grey fowl, by John Chadwick, New-Hartford.

Some beautiful rabbits, very large, with pendent ears, were shown by R. H. Van Rensselaer, and F. M. Rotch.

DAIRY PRODUCTS.—There was a respectable show of these; but we were unable to take particular notes in this department, on account of the derangement occasioned by the tent in which the articles were placed having been blown down.

The show of **FARM IMPLEMENTS** was large and attractive; but we think there was less competition, and for this reason less variety, than at Syracuse. Emery & Co., of Albany, filled a building of their own, 100 by 40 feet, besides occupying a much larger area in the open field. In front of their building was a fountain, which constantly sported its beautiful jets of water, and added much to the ornament and interest of the general exhibition. There were other extensive exhibitors of implements, as Messrs. Starbuck & Co., and Bosworth, Rich & Co., Troy, Wheeler & Co., Albany, and Eddy & Co., Union Village. But we must reserve our notices of particular articles in this department till our next number.

The "**MECHANICS' HALL**" contained a great number of useful articles, under the head of machinery, of various kinds, stoves and other contrivances for housewarming and culinary purposes. Considerable of the machinery was kept in operation, the power being derived from a steam engine put up for the purpose by Messrs. Low & Co., of Albany. A power printing press was worked during the exhibition, which explained the art of printing to thousands, by whom it was before a mystery. The process of printing on stone, (lithography) was also here exemplified.

The "**MANUFACTURERS' AND DOMESTIC HALL**," presented a display which in variety, richness and beauty, exceeded anything of the kind we have before seen; but for want of room, we must defer particular notices till a future occasion.

The **FRUIT AND FLORAL DEPARTMENT** was well filled. In regard to fruits, we believe the display was, with the exception of peaches, equal to that of any previous year. It was the general expression that this department was better filled than at any exhibition since that at Poughkeepsie in 1844. Among the principal exhibitors were Henry Vail, Troy; Elwanger & Barry, Rochester; R. L. Colt, Paterson, N. J.; Jonathan Battey, Keeseville; E. P. Prentice; Dr. H. Wendell; Isaac Denniston; Elisha Dorr; James Wilson; Dr. March of Albany; L. Menand, Watervliet, and Norman Briggs, Schaghticoke. Among the most attractive objects, was a basket of fruits from Mr. Vail, tastefully ornamented and placed in a conspicuous position, containing 34 varieties of apples, 31 of pears, 10 of plums, 8 of peaches, 9 of grapes, and one Christiana melon. Mr. V. had also a box containing a grape vine, on which were eight well ripened and handsome bunches of grapes. The splendid bunches of black Hamburg and other foreign grapes from Mr. Colt received much praise. The show of plums from Mr. Denniston and others was very fine.

Of **VEGETABLES** there was about the usual display. C. F. Crossman, Rochester, made a large contribution to this department. Specimens of blood beets showed by him, were unusually fine.

The **ADDRESS** by Prof. AMOS DEAN, was received with well deserved approbation. His main subject was "**AGRICULTURAL EDUCATION**, the training up of the young mind with special reference to the pursuits of Agriculture." This subject was ably and thoroughly discussed, and was shown to lie at the very foundation of improvement in this branch of industry. In our next, we shall endeavor to give a more comprehensive view of Prof. D.'s highly valuable remarks.

Several distinguished gentlemen visited the show grounds, among which were Ex-President VAN BUREN, Gov. FISH, Gen. WOOL, Com. THOS. AP C. JONES, Hon. Mr. FERGUSON of Canada, G. P. R. JAMES, Esq., (the celebrated English literary writer,) and a grandson of Gen. LA FAYETTE, from France. Delegates were in attendance from the Massachusetts Horticultural Society, the Agricultural Societies of Ohio, New Hampshire, Pennsylvania and various county societies in other states.

Steeping Seeds.

My father brought me up strong in the faith that it was essential to success in raising Indian corn, that the seed should be steeped before planting. He was an extensive, carefully observant and successful cultivator, and the first person who made use of plaster of Paris as a fertilizer in that part of our country. An anecdote connected with its first use will illustrate its effects, and show his reputation as a cultivator as well as the sly humour of one of his parishioners.

A neighbor cultivated one of my father's fields in corn on shares, but declined to put on plaster although proffered to him without charge. A division of the corn was therefore made in alternate two rows. On his part (that is, on every other two rows,) thus set out to him, my father had a spoonful of plaster put to the hill.

The effect was truly wonderful. A party of gentlemen in passing, being struck with the luxuriance of the rows thus plastered, inquired of a parishioner the cause of the difference. "Oh," said he, "there is nothing strange about it; the large rows belong to our priest, and the small ones to one of his people."

My own practice, like that of my father, as long as I can remember, has been to steep the seed some twelve hours in warm water, and then roll it in plaster. I have, also, for many years, carefully experimented with the various steeps recommended in our horticultural and agricultural publications. This spring I used a solution of carbonate of ammonia and chloride of soda in my garden, and my seeds came up finely; far better than usual, although there has been a very general complaint with us, especially in the early part of the season, of seed perishing in the ground.

For my beet seed I used the carbonate of ammonia with the most gratifying results. Indeed there was not a single plant missing on my two beds. I therefore tried the same upon my second planting of corn. It came up a week or more, before a few hills which I planted dry along side, and for some time continued far in advance. This, I then considered, a convincing illustration of the benefits of judicious steeping.

After a while, however, I found that which was planted *dry* becoming more stout and vigorous, and of a deeper green. It gained fast upon the other, and has now far surpassed it in size, strength, and in general vigor.

On the 15th of June, I planted a square of my garden for late corn, using *dry* seed of the shriveled sweet variety. On the morning of the 6th day from planting, it was up two inches, and perfectly even, and on the 10th day, it was eleven inches high. The same rapidity of growth has continued to the present time, notwithstanding the recent dry weather. To-day, July 13th, just four weeks from planting, it is four feet four inches (4 feet 4 inches) high, and of uniform size and strength. (July 18. It is now six feet two inches (6 ft. 2 in.) high, a growth of more than $2\frac{1}{2}$ inches per day from the time of planting.)

If, therefore, the soil is rich, and in proper tilth, why should it be necessary to steep the seed at all. Plants will not flourish in water or in medicated water merely. They need for their sustenance and growth the peculiar nourishment which is to be obtained only from the soil. May we not reasonably infer that the moisture contained in the soil when in proper condition possesses some nutritive properties which are not to be found in water alone. If so, then the water absorbed by the seed in steeping must be prejudicial, since it takes the place of, and excludes from the seed and the germ, the fertilized moisture of the soil. There is danger, too, of injuring and enfeebling the germ itself in steeping, all which will be avoided by using *dry* seed.

I am disposed to think that this matter deserves consideration. The principal advantage of steeping, is to hasten the germination of the seed, and thus to get the plants up as soon as possible. Earlier planting, however, will, of course, bring the plant out of the ground at the same time, and if the crop proves equally vigorous afterwards, will answer the same purpose, and probably with less risk.

CHARLES ROBINSON. *New Haven, July 13, 1850.*

Agricultural Capacities of Wisconsin.

EDS. CULTIVATOR—In pursuance to a call in one of your late numbers, asking for information in regard to Wisconsin as a farming section, this is submitted.

The country is bounded on the Lake shore by a belt of heavy timber, varying in width from five to forty miles, running its whole length. All of extreme north-eastern Wisconsin, is covered with tim-

ber, consisting of pine, oak, bass-wood, hickory and beech; and bordering all the streams, timber grows to a great height and thickness. The balance of the country is generally distinguished by oak openings and prairies. From the center of the State south, prairies prevail, with considerable low wet prairie, and a scarcity of timber. Going from the center of the State north, the country is found higher, drier and more rolling. Here the prairies are smaller, being, generally, from one to ten miles in length by two to five or six in width. Timber is abundant for all the wants of the country; the streams are very numerous, affording an abundance of water power, and in point of health the country is not surpassed by any in the world—the climate is decidedly dry, and is considered good for pulmonary complaints. The Wisconsin river rises in the north-west part of the State, and runs south-west to the Mississippi; the Fox river rises near the same source, (see map,) and runs south and east to Green Bay. Both these rivers are navigable for steamboats, and at the Portage, or Fort Winnebago, approach within $\frac{3}{4}$ of a mile of each other. The General Government appropriated 500,000 acres of land to improve these rivers—to cut a canal at the portage, (which is about completed,) and deepen and clear out the channel, &c. This improvement is being prosecuted with great vigor, and will be completed during the ensuing year. Then a southern or eastern market is offered the choice of the farmers of Northern Wisconsin. A charter has been obtained for a Railroad from Fond-du-Lac, on Lake Winnebago, to Beloit, in the southern part of the State. The money to build the road will be procured on most favorable terms from England—negotiations to that effect having already taken place. This road will open the center of the State south and north, to the markets of the east.

Our school fund will be the best of any State in the Union, estimated at over three millions—common schools will be free to all. There is also a university fund, consisting of 500,000 acres of selected lands.

The inhabitants are mostly Yankees, principally from New York, Vermont, Maine and Ohio, and will compare favorably in morals, general intelligence, and active enterprise, with any people in the world.

It will thus be seen that in point of position, Wisconsin, having the Mississippi river on its west, Lake Michigan on the east, with the Wisconsin and Fox rivers and Green Bay running through the center of the northern part, is unsurpassed in facilities of getting to market by any of the western States.

The Wolf river is a large and deep stream that empties into Fox, near Lake Winnebago. This river is now navigable for steam-boats 150 miles, and penetrates one of the best "pineries" in the world, where now is manufactured, annually, many million feet of lumber. Pine lumber is worth from \$6 to \$12 per 1000 feet. The soil is excellent, resting on lime-stone; it shows at first a black vegetable mould from 10 to 40 inches thick, next a yellow mould mixed with lime-stone pebbles; then coarser lime-stone, gravel and boulders, and then the rock. The soil varies in depth from 8 to 20 or 30 feet. The sun does not shine upon a better or a more beautiful or bountiful country for farmers. Winter and spring wheat, rye, barley, oats, corn, buckwheat, potatoes, turneps, and vines of all kinds, grow to great luxuriance and profit. I have nowhere seen finer garden vegetables produced. The prairie land, owing to its fertility, and the ease with which it is subdued, has the most admirers. On a prairie farm, one man

can till 3 acres as easily and well as the same labor on one acre in New-York. Average crop of wheat is 25 bushels, though 40 is not uncommon—corn 50, oats 40, rye 30, &c. A most profitable business would be dairying—this having received least attention, and butter being worth 1s. to 1s. 3d. per lb., and cheese 8 to 10 cts. Any amount of good hay, (red top and blue joint) can be had for the cutting. Sheep also are most profitable. It would be impossible to find finer ranges for sheep than on the Wisconsin prairies. Sheep brought from Vermont are found to increase one-third in carcass, while the wool increases equally in weight and quality. Wool can be delivered in Boston for 2 cts. per lb. There being no under-brush or dirt, the wool is remarkably clean and straight. Sheep can be kept the year for 20 cts. a head. Fruit, also, would be very profitable, having as yet received scarce any attention. All the best portions of the country are now in second hands, although many thousand acres are still subject to entry at government prices—\$1.25 per acre.

I have given you a rapid sketch of the country, and will feel well repaid if it meets the wishes of your inquirers. I will be happy to give any further information if addressed, post paid; and will say, in this connection, that I have the sale of 400 acres of land in this town, 20 miles from Fond-du-lac, where is daily steam communication with Green Bay—200 acres is prairie, balance timber, oak openings and meadow land, with fine stream of pure water running through it—100 tons of the best grass can be cut. There is two good houses, barn, stables and out-houses, and 200 acres under fence and cultivation. This land was selected seven years ago—price \$10 per acre, will be sold whole or in part. Respectfully, &c., C. H. GREEN. *Waupun, Fond-du-lac co., Wis., August 23, 1850.*

Treatment of Birds.

In looking over a bundle of old letters, &c., the other day, I found the following sketch, written about ten years ago, to a correspondent. Of course, it was not intended for publication. At this time, however, when some very ultra notions on the subject of birds are taking the rounds of the newspapers, perhaps your readers would be willing to hear something on the other side. D. T. 7 mo. 30.

I am fond of ornithology, but not of all its subjects. There are great villains that *fly* as well as *walk*. For practical purposes, birds should be divided into three classes; and we ought to regulate our enmity or favor accordingly.

1. Such as live on the products of our labor, and render no benefits in return.
2. Such as prey on those products in part, and in part on destructive insects, &c.
3. Such as assist us without committing any trespass.

Of the *first class*, perhaps there are very few, but the cedar bird certainly ranks among them; and I should name in the same indictment the larger hawks, and the larger owls.

The *second* is a very large *class*, and contains the smaller hawks and the smaller owls, both useful to some extent in catching mice, besides the crow which eats grubs. In selecting from this class, such as should be fostered or repelled, however, much discrimination is necessary. Many birds that are useful, claim high wages; and we must judge whether we can afford to employ them, or not. Of this kind are the robbin, the cat-bird, and the woodpecker, who work some and plunder some.

My rule is, if but few come, I bear with them; if

many, I thin them—I have no notion of giving the whole crop to pay for destroying a few insects; and it is but few insects that we care much about, that they do destroy. The worst kinds they generally leave untouched.

I know some people say, "you should not kill the birds." "Doctor," said a lady in my presence, to an M. D., "I have never thought so well of you since I heard of your throwing stones at the birds that came to eat your cherries." Yet I am confident that lady herself would throw a stone at a hawk that came to eat her chickens, or broomstick a rat from her meal-tub or pantry.

"O, that is a different affair!"

Is it? Now let us be consistent, and carry out our principles fairly. Rats are useful—they eat worms, and even one another, when they are very hungry; and why should they be punished when birds equally predatory are allowed to escape?

"Rats are nasty things."

Then they are killed for being nasty! and birds are saved for being pretty! It appears, then, that *partiality* or *prejudice*, and not *principle*, rules. Do as you like, but ascribe the action to its proper motive, and try to be charitable towards others who differ from you.

The *third class* is worthy of all our care and protection. This includes all our sparrows, all our swallows, all our fly-catchers, (for the king-bird only eats the drones) and many others. In regard to such, I should say most emphatically, "Fowler, spare that bird!"

"All work and no play makes Jack a dull boy."

EDS. CULTIVATOR—Perhaps there is more truth in the above line than is generally imagined. I, for one, believe that there is more truth expressed in this simple phrase, than in many a gilded volume, whose decorations poorly compensate the reader for the nonsense found within.

Farmers, in New England especially, labor too hard. The sole object, with too many of them, is to get money—to increase their possessions. They seem to think that a man's happiness depends upon the number of dollars he has—that enjoyment rises or falls in proportion as wealth increases or diminishes. Now this is a very common error, and one which we are all liable to fall into. We naturally suppose that wealth and happiness go hand in hand, but we often find ourselves mistaken. The man who labors constantly—

"From early dawn to gloamin' grey,"

infringes one of the most important laws of his being. He cannot cultivate his mental powers if he would, for the simple reason that excessive labor so weakens the brain that he feels no disposition to study, and would find it impossible were he inclined to do it. We all know that by overloading the stomach with food we are rendered weaker, both physically and mentally. The stomach is then compelled to rob both the muscles and the brain, in order to throw off this excess of food. It is just so with the muscles; when they are over taxed, the brain and the other organs must suffer in consequence. And upon the same principle the brain, when too severely taxed—which there is little danger of among us at present—it will require more than its share of nervous energy in order to supply the demand made upon it.

In order to follow the laws of Nature—which no one can transgress with impunity—we should never cultivate one set of organs while another lies dormant. The mind of itself does not form a man, neither does the body, but both combined, when pro

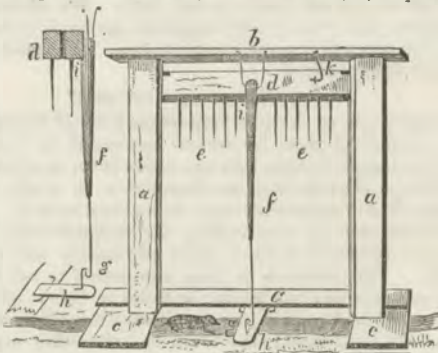
perly balanced, form a man perfect in every respect. Farmers often complain that their boys, instead of following in the "good old way," are glad of a chance to learn a trade, or get behind the counter. Now I do not wonder at this in the least. We expect too much of them. They are made to work with no inducement but that of necessity, and then we wonder that they "hate farming!" The less boys are required to work beyond their inclinations, the better. Not that they should lie dormant, but let them have proper inducement, and there will be little danger of laziness. They require those energies for growth, which grown people can expend in labor; consequently if we require hard labor of them we injure their health, and induce premature decay. Excessive labor, even if it does not break down their constitutions, has a brutalizing effect, as it extinguishes all love of study, and renders them capable only of animal feelings and enjoyments; thus turning into a curse, what, properly regulated, is man's greatest blessing, and most prolific source of enjoyment. SYLVANUS.

Mole Trap.

In answer to several inquiries for a plan of a mole trap, we give the accompanying cut and description, which was originally furnished for the *Horticulturist*. Eds:

This newly invented trap consists of a frame, composed of two uprights, *a a*, about 22 inches high, joined by a top board, *b*—the whole fastened on a foot or base *c c c*. *d* is a heavy piece of scantling or block, which by means of grooves is guided along the uprights up and down. In the lower part of the block are inserted a number of sharp steel pins, about seven inches long in the clear. In the part *C*, of the foot-board, is attached a small piece of thin board in the manner of a pedal of a piano forte, which, when the trap is set, crosses the passage of the mole. *f* is a wooden latch, suspended by a wire from the cross-piece of the frame, and terminating with a wire hook, *g*, at the lower end, somewhat flattened. In the upper part of the latch is cut a notch or shoulder, (*i*,) as a rest for the pin block when the trap is set.

Set the trap lengthwise over the passage draw the block up and fasten it by the wire hook, *k*, to prevent



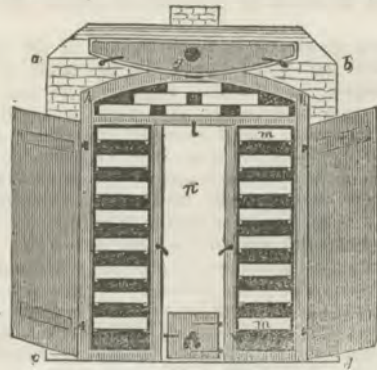
accident to the trapper; place the apparatus over the passage of the mole in such a manner that when the block falls it will come exactly in the middle of the passage. The ground under the trap in the passage should be taken out and the bottom levelled, and the sides padded and made hard. The ground taken out should be freed from obstructions, and placed again loose in the passage; but before this is done, the block should be tried if it operates well, and falls right in the passage. Then hang the hook

of the latch into a similar hook, projecting upwards from the pedal, so that they may separate upon the slightest touch, by the lifting of the ground on either side by the mole, which in an instant brings down the block and pierces the animal through.

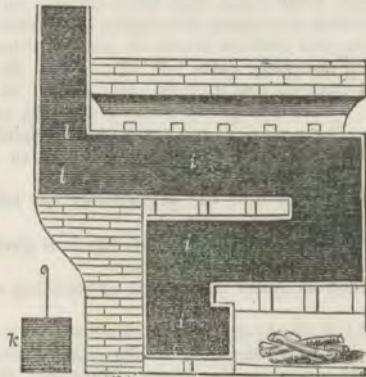
Drying Fruits.

We cannot better comply with several requests for information on the subject of drying fruits, than by the insertion and description of the annexed cuts. The apparatus was made in Germany, and was designed chiefly for drying prunes, but it will answer equally well, with slight modifications, for drying peaches, or apples. It is described as follows:

"The vault or exterior of the oven, four and a half feet long, is surrounded by a brick wall one foot thick, so that the whole stove, *a b c d*, is exactly six feet every way; the front wall, *n*, being only half a foot in thickness. At the top, the vault is arch-



ed over with six inches of brick work at the crown of the arch. The flues, *i i*, are about fourteen inches square. The hurdles or trays, *m m*, for containing the prunes, rest upon shelves, fixed upon two bearers. It would be better if they rested upon rollers, so as to admit of their being pushed in, and drawn out,



with greater ease. These lines of trays are placed at a distance of six inches from the furnace, so as to keep the fruit from too great a heat; they may be made entirely of wood, but it will be better if the bottoms are of open work, like sieves. Their weight is such that they may be easily managed by a woman; but in preparing prunes on a large scale, let them be made of greater length and breadth, so as to just come within the strength of a more robust person.

"The wooden frame, *h h*, is that on which the two doors are hung. The door, *g*, which covers the

arch, (and which is represented in the cut as open and fastened up,) shuts up the front of the upper part of the oven. In the middle of this upper door or flap, is a round vent hole, for the escape of the moist vapor. *k*, is an iron damper, or slide, to be placed in the flue at *l l*, in order to regulate the heat."

Locusts and Grasshoppers.

An impression prevails among our people that the *Cicada Septendecim*, commonly called the "seventeen years locust," is the same insect, or a species allied to it, which, under the name of locust, sometimes commits fearful ravages on the vegetation of some eastern countries. The two insects bear but little resemblance to each other. The *Cicada* feeds wholly under ground, and on the roots of plants, during the period of sixteen years which it requires to reach its perfect or winged state, and during the latter state it eats *nothing*—the damage it occasions, being caused wholly by the perforations of branches of trees, by the female, in preparing receptacles for her eggs.

The true locust—(*Acridium*)—on the other hand, is an insect whose whole period of existence is but one season; it feeds entirely on the leaves and stalks of plants, and its voracity is such that it devours every green thing it can reach. It is what is popularly called, in this country, a grasshopper, though naturalists, very properly, make a distinction between grasshoppers and locusts. The "red-legged grasshopper," so called,—the most devastating species, perhaps, belonging to this country,—is considered by Dr. HARRIS as a proper locust, which he calls *Acridium femur-rubrum*. It is this species, principally, which has overrun different sections of our country, and caused very great damage by eating up the vegetation of all kinds. They prevail most in dry seasons. Heavy rains, or continued wet weather while they are young destroys them in great numbers. We think it probable that it is this species which has been very numerous and has done much injury the present season, in some of the northern counties of Ohio, where a severe drouth prevailed in May and June. A correspondent of the *Ohio Cultivator*, writing from Erie county, in that State, under date of Aug. 8, says he had never seen grasshoppers (locusts) in anything like such numbers before, as they have appeared this season. "They covered the fences by the roadside—the bushes and small trees were loaded with them, when they went up to roost, so as to bend as with a crop of fruit. I only saved my peach crop in my newly grafted orchard of 500 trees, by driving them off the trees just at evening every night for weeks together, otherwise they would have stripped the leaves all off, and left the fruit bare, as they did in some cases after all our efforts. In many meadows they left scarcely any thing but the bare stalks, and our pastures are gnawed to the ground, notwithstanding the abundant rains. Oats and potatoes are also badly injured by them. They have been taking themselves off for a week in large numbers. They fly so as to fill the air like a swarm of bees, for hours together, in the middle of the day, almost invariably taking advantage of a lake breeze to waft them south, and flying at a great height, are not perceivable except by looking towards the sun."

This migratory habit is possessed by several species of locust. We have accounts of their flying in such numbers in oriental countries, as literally to fill the air, and obscure the sun at noon-day. The same propensity has been manifested by the "red-legged" species above mentioned. The late Presi-

dent DWIGHT, of Yale College, notices their appearance in Massachusetts and parts of Vermont in 1797 and 1798. He observes:

"At times, particularly a little before their disappearance, they collect in clouds, rise high in the atmosphere, and take extensive flights, of which neither the course nor the direction [?] has hitherto been discovered. I was authentically informed that some persons employed in raising the steeple of the church in Williamstown, were, while standing near the same, covered by them, and saw, at the same time, vast numbers of them flying far above their heads."

Thick and Thin Seeding.

The proper quantity of seed, for the various grains, to be sown to the acre, is a subject on which much has been said and written, especially in England, where many experiments in relation to it have been made. The question cannot be fully settled, without a long series of carefully conducted experiments, made and repeated under the same circumstances.

The *Transactions* of the N. Y. State Ag. Society for 1849, contain the results of some trials, by Mr. ADAM CLARK, of West-Dresden, Yates county, in sowing various quantities of wheat to the acre. The communication of Mr. C. was referred to a committee, of which JOHN DELAFIELD, Esq., was chairman, who submitted a report from which we take the following:

The experiments of Mr. Clark show that wheat planted uniformly at distances of 1½ inches apart, will require about 224½ lbs. or 3 bushels 44½ lbs. per acre. This weight of wheat consists of about 2,890,320 grains. Mr. Clark planted a portion of ground in this manner, which was harvested at the proper season and thrashed on the 22d of August, and weighed on the 17th December—estimating every ounce to contain 800 grains, as weighed by him. The product of an acre similarly treated produces 63,248,000 grains, or 4,160 lbs., which is equal to 69 bushels 10 lbs. of wheat per acre.

The second experiment shows that about *two bushels* of wheat, or 126 lbs., sowed on an acre of ground at the 'uniform distance of *two* inches apart, will yield 3,580 lbs. of wheat, or 59 bushels 40 lbs. per acre. In this experiment the number of grains sowed to an acre is about 1,616,000.

It has been usually estimated that in broad-cast sowing of wheat under favorable circumstances as to weather and condition of the soil, the average deposit of seed is 48 grains per square foot; if so, an acre of broad-cast requires 2,090,880 grains; and estimating this quantity at the weight of Mr. Clark's wheat, it gives 2 bushels and 44 lbs. per acre. It would have been advisable to measure and weigh the seed *before* planting, as well as after harvest, as season and cultivation may essentially vary the relative quantity and quality of the seed and the product. We would have been pleased to know, also, whether every seed planted, arrived at maturity; if not, what proportion was imperfect or destroyed. It is well known that a large per centage of the wheat sown broad-cast is lost to the farmer. We need therefore very exact observation, to approximate a fair estimate of comparisons.

The following is the substance of Mr. Clark's statement:

On 23d September, 1848, I prepared four beds of ground to plant with wheat, on a summer fallow that had been twice plowed during the summer. The ground was prepared by finely pulverising it with a hoe and rake, to the depth of eight inches. Four beds were accurately measured, each one-

fourth of a rod square, leaving a walk of about 7 inches between them; they were numbered and subdivided as follows: No. 1, in squares $1\frac{1}{2}$ inches each way; No. 2, about 2 inches; No. 3, a little short of 3 inches; No. 4, $3\frac{1}{2}$ inches, including the outside lines of each bed. Then with the thumb and finger I carefully dropped a kernel of wheat in the corner of each small square, of No. 1 and 2; then, with a stick prepared for the purpose, I placed each grain $1\frac{1}{2}$ inches below the surface, and then with the head of a rake made the surface entirely smooth. On Monday, 25th, I planted Nos. 3 and 4 in the same manner; they were all planted with the Soule's variety of wheat—the seed dry, without any preparation. The soil is a clay loam, with a slight inclination to the north and north-west, and fully exposed to the winds from those directions. I used no fertilizers, except a little Gypsum; on 17th of May, while sowing on the rest of the field, I gave the bed a slight coating at the rate of from $1\frac{1}{2}$ to 2 bushels per acre. Harvested July 25th, 1849, with a hand cradle and bound it in sheaves and carried it into the barn in about two weeks. The parcels carefully shelled and kept separate. On the 22d August, each parcel was weighed separately, by sealed scales, the result of which may be found in the annexed table. On the 17th of December, 3 oz. were weighed in sealed scales, and by counting all the grains weighed, I found that there were 800 grains in an ounce. An estimate of the amount of seed planted is made from this data, as well as the average product from each.

No. 1.—Number of grains planted 4,488; weight of product in pounds and ounces, 6 lbs. 8 oz.; amount of seed sown per acre, 3 bu. 45 lbs.; yield per acre in bushels, 69 bu. 20 lbs.

No. 2.—Number of grains planted, 2,525; weight of product in lbs. and oz., 5 lbs. $9\frac{1}{2}$ oz.; amount of seed sown per acre, 2 bu. 6 lbs.; yield per acre in bushels, 59 bu. 40 lbs.

No. 3.—Number of grains planted 1,206; weight of product in lbs. and oz., 4 lbs. 12 oz.; amount of seed sown per acre, 1 bu.; yield per acre in bushels, 50 bu. 40 lbs.

No. 4.—Number of grains planted, 870; weight of product in lbs. and oz., 4 lbs. 4 oz.; amount of seed sown per acre, $43\frac{1}{2}$ lbs.; yield per acre in bushels, 45 bu. 20 lbs.

"Notes on American Farming."

The March and July numbers of the *Scottish Quarterly Journal of Agriculture* contain several pages under this head, purporting to have been written by an Englishman who has spent some time in travelling in this country, and particularly noticing its agriculture. His remarks, in general, are expressed in a kindly spirit, and we think he intended to give a fair view of our farming, as he saw it; though he has, nevertheless, fallen into occasional errors—the result, perhaps, of limited observation, and the want of practical knowledge, in some instances, of the subjects on which he speaks. We make some extracts, both for the purpose of correcting errors, and to show how some of our resources and products, as well as some of our customs, strike the mind of a stranger. In regard to the cultivation of fruit in this country, the writer says:

"In scarcely any department of cultivation has there been such a decided improvement as in that of fruit. At present, throughout the whole Union, there is quite an excitement in the object of raising fine fruits. Numerous societies have been formed for the purpose of giving encouragement to cultivators, and not a few of the pages of the agricultural papers are devoted to accounts of improvements, and

of new fruits raised. It is the general opinion that the time is not far distant when the export of fruit will exceed in amount (that is to say, if there is a demand for it) that of any article of export.

"To judge of the value and importance of this crop to the agriculturists of the States, it must be remembered, that what we have been describing as the flourishing condition of only one State is but the type of others. In the Northern States there are numberless orchards, not only of pear and apple, but of peach and other fruit trees. 'There are peach orchards in New Jersey and Delaware occupying upwards of a hundred acres each. There is one at Reyhold's, covering a thousand acres. The crops of this latter orchard are so large as to give constant employment to two steamboats and a schooner in conveying the fruit to market.' And attached to almost every farm there is a large or small orchard. One of the most striking curiosities of New-York, in the fruit season, is the various steam and sailing boats bringing their freights to the market. Last year we frequently went to the markets, and were abundantly repaid for the trouble. We certainly never expect to see such a gorgeous display of fruit again. As might be expected from the statements we have given, fruit is everywhere cheap. Peaches, large, luscious, three a-penny of our money; some particularly large, one and two cents, sometimes four cents a-piece—the latter would have been charged a shilling or two here. The crop of apples was last year considered a failure, and yet we have bought three beautiful ones for a cent. No one in this country can have an idea of the amazingly rich flavour of some kinds of American apples. Those so highly prized here, as real Americans, convey no idea of the best quality of fruit to be obtained for a mere trifle in the fruit-growing States."

The writer seems highly pleased with most of our farm implements. He says:

"The agricultural implements in the United States are much lighter in construction than in this country, the plows particularly so. These are well adapted for the peculiarities of the land. It would be impossible to plow land recently cleared, with all the stumps and roots scattered here and there, with the heavy plows of this country. It is astonishing to see how easily the farmer turns aside from the stumps; and even should he fall foul of one, the plough is so light, that he can *fillip* it past the obstruction very easily. Old Country farmers are disposed to find fault with them, but they are soon taught to perceive that they are very well adapted to the kind of labour they have to perform. With reference to other implements, the same rule holds. The hay-forks are amazingly light and handy: a young boy can easily use them. Scythes, hatchets, &c., are all made exceedingly light and portable, and in this we think the Yankees show real wisdom. There was no real utility to be gained by having huge heavy instruments to deal with. A farmer who had had, both in this country and in America, much experience as a hard-working man, told us that the result of his experience was, that more work could be done in the same space of time, and with less of fatigue, with the Yankee tools than with those of this country. The axes used for felling trees are very light: we must confess that, at first sight, we thought that heavier heads would have been better; but a sight of the execution they performed in good hands, on the sturdy sons of the forest, soon showed us our mistake. The 'horse rake' is almost universally used for gathering the hay off the fields, and forming it into 'cocks.' There is scarcely such a thing as reaping corn by hooks, as here performed,

the common seythe, or more generally the cradle-seythe, being used. It is astonishing how much one man can cut down in a day. There is great rivalry in this point amongst farm-servants."

On the subject of fences, the writer complains of our "horrible slovenliness." He admits, however, that "on all well-conducted farms, the fences, &c., are admirably constructed and arranged;" but adds, (and we confess there is too much truth in the remark,) that "this, unfortunately, is the exception, not the rule." The zig-zag or "worm" fence, common in some sections, was regarded as particularly unpleasant to the eye, though the writer admits "it is really very strong, and capable of resisting considerable opposing force," and he concludes, that where wood is plentiful, it is not so bad a fence after all. He thinks our farmers "are very fond of this fence, ugly and cumbersome as it is," and says he was informed that this attachment is so strong "with some old people, that when they build wall fences, they build them in and out, in the same zig-zag way." This singular mistake was probably derived from the fact that in some places where only a few stones, and those of not very good quality for making fence, are to be had, it is sometimes practiced to lay them up in the way mentioned, for the purpose of forming the under part of the fence, topping out with rails, to the requisite height. This form gives to the fence much more stability than it could have if laid straight.

In regard to animals used in farm labor, he falls into a striking error. He says—"Oxen are invariably used for farm purposes, carting of hay, &c. Some of these animals," he continues, "are really wonderfully well paired. A friend of the writer's had a pair so beautifully matched, so alike in respect to color, size, and even shape and length of horns, that it was difficult to distinguish between the two. Farmers vie with one another in raising handsome, well-paired oxen. Much more attention is now paid than formerly, to the raising of stock."

The growth of vegetation, is represented as being wonderfully rapid. "In the Northern States, though the winter can scarcely be said to be broken up till April, barley is generally ready to cut early in June; wheat is ready towards the end of the same month." This would truly be a rapid growth for barley. It is seldom sown before the first week in May, and not unfrequently as late as the second week, and if it gets ripe even a month later than the time this writer gives, it is thought to grow pretty quick.

In regard to Indian corn, he observes—"it is the staple commodity of American farms; it is used in all kinds of ways. One variety (!) is taken in its green state and boiled. Its flavour is remarkably fine, and resembles very much that of green pease!" To the latter expression, we can only say, "there is no accounting for tastes." He further says in regard to Indian corn—"Some species (?) grow very high; we have seen stalks ten and twelve feet in height." If he had gone into some of the rich valleys of the west, he might have seen it growing to the height of sixteen to eighteen feet.

In relation to the character of farm laborers, and the facilities afforded them for the acquirement of property, the writer remarks:

"As a general rule, farm-servants are a very sober, quiet, industrious class,—rarely spending their time and money in public-houses, or needlessly. A sober and industrious man has a fair chance of saving as much money, in the course of twelve or eighteen months, as may enable him to 'go West' and purchase a small lot of land. 'The American labourer, if frugal and temperate, may have his own lot, and

house, or cottage, and good furniture in it. By the aid of his cow, his garden, female industry, and good management, he may save his wages entire.' Many eminent professional men and statesmen have had just such a humble beginning; and a great majority of wealthy farmers have begun in a similar position. A great help to parties with small capital is the facilities given for the purchasing of land. In very few cases, indeed, is the purchase-money at all demanded. The general way of doing business is paying by yearly or half-yearly instalments. Where the purchase-money amounts to four or five thousand dollars, the time may extend over a period of six or seven years. Credit is universally given: farming tools and seeds, &c., can be got on easy terms."

Royal Agricultural Society.

The annual show of this association took place at Exeter, in Devonshire, in July last. In the department of live stock there seems not to have been as extensive a competition as in some former years, but in respect to quality, the animals were deemed generally equal to those of former exhibitions. An English paper observes:

"The horned cattle were, as usual, divided into three grand classes. Short-horns, Herefords, and Devons. Of the general characteristics of the animals exhibited of the three breeds, we believe we are right in stating that the show of short-horned bulls was indifferent; that of the heifers decidedly good; that of the cows very fair. The turn-out of Herefords of both sexes and all ages was not extensive, but good. The Devons, however, naturally formed the great attraction of the show, and a finer display of animals of this class was, in the opinion of competent judges, never previously brought together."

The Leicester, Cotswold and South Down sheep, appeared in their usual number and excellence.

At the dinner of the society, Mr. LAWRENCE, our minister to London, and Mr. RIVES, our minister to Paris, were honored with seats, and both responded to complimentary toasts.

The Farmer's Every-Day Book;

Or Sketches of Social Life in the Country; with the popular elements of Practical and Theoretical Agriculture, and twelve hundred laconic and apothegms relating to ethics, religion, and general literature; also five hundred receipts on hygeian, domestic, and rural economy. By Rev. JOHN L. BLAKE, D. D. Auburn, DERBY, MILLER & Co.

The leading design of this work is to induce farmers to investigate the general principles of agriculture, by reading the best books and periodicals on the subject, and ultimately to secure such an education for the rising generation, as will enable them to practice the occupation with the best results. The author endeavors in the outset to overcome the prejudice against "book farming;" he has, therefore, to use his own language,—“instead of offering the rural community a large volume consisting of the didactics of agriculture, concluded to treat them with the tit-bits of domestic economy, with hints on education, with prescriptions for health, and especially with instructions for the better maintaining the social relations of life.” We think the work is well calculated to interest and benefit a large portion of our rural population. The publishers have got it up in handsome style, and its appearance is altogether attractive. It will be seen that we have given, in another part of this number, an extract from its pages.

Notes for the Month.

COMMUNICATIONS have come to hand, since our last, from R. H. Drake, Dr. H. S. Chase, Luther Redfield, A. Subscriber, J. Briggs, Charles Nutting, David Hillman & Sons, C. H. Green, T. H. Hyatt, Titrius, W. T. Dennis, D. B. N., D. T. Brown, Chas. Hamilton, J. B.

BOOKS, PAMPHLETS, &c., have been received as follows:

Report of the Naval Committee on the establishment of a line of Mail Steamships to the Western Coast of Africa, from Hon. F. P. STANTON, M. C.

Speech of the Hon. Mr. BINGHAM, of Michigan, in the House of Representatives, on the bill for the Extension of the Patent to the heirs of Jethro Wood, from the author.

Descriptive Catalogue of Trees, Plants, &c., cultivated in the Mount Hope Nurseries of ELLWANGER & BARRY, Rochester, N. Y., for 1850-'51.

Catalogue of the Highland Nurseries of A. SAUL & Co., Newburgh, N. Y., for 1850-'51.

REPORT ON TRIAL OF PLOWS.—It will be seen that we have occupied a considerable part of this number with the report on the trial of plows, which took place near this city in June last. This trial created much interest, and much eagerness has been manifested in regard to the report and awards. Our readers will doubtless be gratified with a perusal of the document.

DRAINING TILES.—Mr. A. S. BABCOCK, of this city, is now engaged in the manufacture of drain-tiles of various descriptions. He has one of the most approved machines, imported from Scotland, and recommended by Mr. STEPHENS, author of *The Book of the Farm*, and has all the apparatus required for producing the best tiles. Our farmers will now have the opportunity of obtaining this important article in any quantities, and we hope the business of drainage will now be commenced in earnest, as we are convinced that no improvement, if judiciously executed, can yield a better return. The tiles can be shipped to any part of the country. Samples can be seen at this office.

ANIMALS FROM AFRICA AND SPAIN.—THOS. H. HYATT, Esq., our late Consul at Tangier, on his return to this country, a few days since, brought with him several animals—all of which are interesting from their rarity, and some of them are likely to be useful in this country. Among them are a horse of the Barbary stock, an Arabian pony, a wild boar from the Atlas mountains, a beautiful species of African partridge, several rare kinds of doves, and a pair of pigs and some fine fowls from the south of Spain. The horse was left with a gentleman in New York—the other animals, with the exception of the Spanish fowls, were taken by Mr. H. to Rochester. The pony is of elegant form, and is said to be remarkable for speed and endurance. The wild boar is young, and does not yet show any of the ferocity for which his race is distinguished. He is a singular animal, bearing but a distant resemblance to the domestic pig. His head is rather long, the face straight and narrow, the ears very small and upright, the back arched, the legs long and slender. His coat is more like hair than bristles, and of an iron-grey color. What will be the effect of mingling this blood with the domestic stock, cannot be told at present, but we should suppose the stock of such a cross, would be likely to suit such farmers as wish their hogs to be able to outrun dogs.

SALE OF SHORT-HORN CATTLE.—The sale of Mr. SHEAFE's cattle took place at his farm in Dutchess county, on the 29th of August. The sale was well attended, and the animals sold at good prices.

Twenty-eight cows brought sums varying from \$47.50 to \$185; calves from \$55 to \$105; and the imported bull Exeter \$500. The latter was purchased by L. F. ALLEN, Esq., of Buffalo. The sum total brought by the 33 animals in the catalogue, was \$4,857.

PEARS.—We have received from Mr. COLBERT HUNTINGTON, of Painesville, Ohio, a box of pears, supposed to be a new variety. The box did not come to hand till the pears were rotten, so that, unfortunately, we had not the pleasure of tasting them.

SALE OF AYRSHIRE CATTLE.—The bull and cow which obtained the first prizes in their class, at the late Fair, have been sold by Mr. PRENTICE to Mr. TIFFANY, of Cocksackie. They will furnish a good beginning for a valuable dairy stock.

☞ The Ayrshire bull of Mr. WOODFORD, of Connecticut, it will be seen by an advertisement, is left for sale at the farm of Mr. PRENTICE, near this city. He is of good blood, and would be a useful animal to take into a dairying district.

SALE OF STOCK.—It will be seen by the advertisement, that the cattle, sheep and swine, belonging to the estate of the late WM. STICKNEY, will be sold at auction, at Westminster, Vt., on the 9th of this month. It will afford an opportunity for the purchase of very fine animals, and probably at reasonable prices.

LARGE PRODUCT OF BUTTER.—S. P. CHAPMAN, Esq., of Clockville, Madison county, N. Y., obtained the premium for the best dairy cow at the late State Fair, for a Short-horn cow, five years old, bred by GEO. VAIL, Esq., Troy. It was stated that the milk of this cow, during ten days in June last, yielded 20 lbs. and 4 oz. of butter; and that her milk during ten days in August, yielded 19 lbs, 14 oz. butter.

Mr. WM. L. COWLES, of Farmington, Ct., exhibited at the fair a very fine Devon cow, bred by Mr. Patterson, of Maryland. He stated that her milk, during ten days in June last, yielded 16 lbs. 14 oz. of butter. She is of medium size, and of beautiful form. She is not only good for the dairy, but is just such a cow as would be chosen to produce the most valuable working oxen, and such an one as would be likely to produce a healthy, hardy and useful progeny for any purpose.

HONEY.—We have received from Mr. ARZA GILMORE, of Wayne, Maine, a sample of honey, of superior quality made the present season in his apiary. He has adopted a plan of keeping bees, which in many respects is novel. His bee-house and his specimens of honey, each received the first premium at our late State Fair. He supports his bees, chiefly, by an artificial compound, prepared by himself. This renders the keeping of bees practicable in all situations. The compound is not expensive, and the honey made from it is pronounced, by all who have seen it, of the very best quality, and in small boxes and jars, readily sells in Boston and other cities at twenty-five cents a pound. Mr. G. states that he has taken this season, from nine hives placed in his house last winter, *twenty-three hundred pounds* of honey.

PROFITABLE SHEEP.—In reply to the inquiry of Mr. JOHN JOHNSTON, in our August number, respecting the returns of flocks of sheep, as compared with his own, we have received the following statement from DAVID HILLMAN & SONS, of East Avon, N. Y. The whole number of their flock was 349, of which 143 were ewes which raised lambs this season; 97 were two-year-old ewes and wethers, 196 yearlings,

and 3 rams. Messrs. H. sheared from all, 1,730 lbs. wool, which sold at home for 39 cts. per pound, or in the aggregate, \$674.70. The two-year-olds and yearlings, 203 in number, sheared 5½ lbs. washed wool per head. They were Merinos.

ALBANY AND RENSSELAER HORTICULTURAL SOCIETY.—The annual exhibition of this society was held at Albany, on the 18th and 19th of September. It was the finest display of fruits and flowers ever made by the society. Apples, pears and peaches, were numerous and fine, and there were several very handsome specimens of grapes, both of exotic and native varieties. The show of plums was not large—there being rather a scarcity of that fruit in this vicinity the present season, and it being, besides, rather too late in the season for many of the best kinds. There were many fine peaches, all grown in this neighborhood. The principal exhibitors of fruits were Messrs. Dow, Prentice, Wendell, Wilson, Thorburn & Teller, Aiken, E. H. Pease, E. Corning, Jr., Elisha Dorr, Denniston, and J. S. Goold. The show of flowers was very rich. Norman Briggs, of Schaghticoke, exhibited ninety-five varieties of dahlias, most of them very perfect flowers, forming altogether the most attractive display of this kind we have ever seen. A specimen bloom of the variety "Princess Radville," shown by James Wilson, was universally admired. There was a large show of roses, verbenas, asters, &c. The collection of roses shown by L. Menand, surpassed any similar display we have seen at this season of the year. The collection of Mr. Wilson was also fine. Very handsome collections of flowers of various kinds, were also shown by Messrs. Dingwall, Quinn, Newcomb, Corning, Goold, and Pease. There was a large show of vegetables, and they were generally of a very excellent description.

A PRIZE ANIMAL.—The Short-horned bull "Belleville," bred and owned by J. MASON HOPPER, Esq., of Stockton-on-Tees, which received the sweepstakes prize of £65, (\$325) at the late show of the Highland Agricultural Society, had previously taken the highest prizes in the class of Short-horns, at all the principal shows in the kingdom, viz, the Yorkshire Society, the Royal Society, the Irish Improvement Society, and the Highland Society. He is seven years old. The whole amount he has received in prizes is £160, or about \$800.

LEAP OF A HORSE.—A Pottsville (Pa.) paper states that a mare, on which a boy twelve years old was riding, became frightened and ran away. In her course, she came to where a bridge across a stream had been removed. Here she paused for a moment, as if hesitating to attempt the leap; but gathering her energies, she bounded across the gulph. Several persons immediately measured the distance, and found it to be *twenty-seven feet*. Neither the mare or rider were injured.

MILL-TOLLS IN ARKANSAS.—D. H. BINGHAM advertises in the *Little Rock Gazette and Democrat*, that persons wishing to have corn ground, can have it done at his mill at any time; that there may be no "misunderstanding," he gives notice that "the rates of toll charged, are one-third, or twenty-five cents per bushel."

WILL FISH REVIVE AFTER HAVING FROZEN?—It has often been said that some kinds of fish would revive after they had been frozen entirely through. A correspondent of the *Cleveland Visitor*, states that a lot of perch were caught in the winter, and thrown on the snow, where they soon froze so solid that in handling them, many had their fins broken off. After remaining frozen several hours, they

were put in a tub of water, and on examining them after they had been in the water a while, several of them were found as lively and active as any fish could be. Dr. J. P. KIRTLAND, in the same paper, states that in 1820, he and several other persons caught eight or ten bushels of eels, in a stream in Connecticut. It was in very cold weather, and the eels had been driven from a mill-pond by drawing off the water. He says:—"The eels were taken home, and during the night were placed in a cold and exposed room, and were literally as stiff and almost as brittle as icicles. The next morning a tub was filled with them, into which was poured a quantity of water drawn from the well, and they were then placed in a warm stove-room for the purpose of thawing. In the course of an hour or two the family were astonished to find them resuscitated and as active as if just taken during summer. The experiment was tried with a number of tubs full during the day and with similar results."

SAGACITY AND STRENGTH OF THE SPIDER.—The intelligence and power evinced by the spider in securing its prey, has often attracted attention; but we have seldom heard of so remarkable a display of these faculties as we witnessed a short time since. A small-sized spider had made his web on the under side of a table. Early one morning, a cockroach was noticed on the floor, directly under the web, and on approaching to take it away, it was found that the spider had thrown a line round one of its legs, and while the observer was looking at it, the spider came down and *lassoed* the opposite leg of the cockroach. The spider then went up to his web, but instantly came down and fastened a line to another leg, and continued for several minutes darting down and fastening lines to different parts of the body of his victim. The struggles of the cockroach, (though a full-grown one,) were unavailing to effect his escape—he could not break his bonds, and his efforts seemed only to entangle him the more. As his struggles became more and more feeble, the spider threw his lines more thickly around him; and when he had become nearly exhausted, the spider proceeded to raise him from the floor. This he did by *raising one end at a time*. He at first raised the head and forward part of the body, nearly half an inch; then raised the other end; and so continued to work, till the cockroach was elevated five or six inches from the floor. Thus, "hung in chains," the victim was left to die. The spider was, as before remarked, a small one, and could not have been more than a *tenth* the weight of his prey.

SEEDLING APPLE.—We received some time since, from CHARLES P. COWLES, Esq., of Syracuse, some specimens of a seedling apple. They appeared to have been picked rather too green to admit of their quality being fully ascertained, as they were very hard when received, and rotted without becoming *naturally* ripe. We cannot, therefore, judge fairly of its merits. It is a fruit of fair size and form, and handsome appearance.

Wool Market—Sept. 23, 1850.

The market is firm for all grades—though less active for the fine than for medium and low qualities. The demand for the latter being greater than the supply the prices of Foreign have advanced to an unusually high figure. There is no probability that the quantity imported can be materially increased, and certainly not without further advancing the rates. The recent public sales in London, of Foreign and Colonial wools, show an advance of one penny (2 cts.) per pound, with a very active market. This state of things in both the United States and England, gives the assurance that before the close of the season, the Saxony clips of the U. S. will be wanted at fair prices. We quote,

Saxony Fleeces,	44a50c.
Full blood Merino,	40a42c.
½ to ¾ do.	36a38c.
Native to ¾ do.	33a36c.

Prices of Agricultural Products.

[Review of the Market for the last month.]

ALBANY, SEPT. 20, 1850.

Our market since our last report has been active, though not more so than is general at this season of the year. A good business has been done in the leading articles of produce.

FLOUR.—The early part of the month called forth but a light supply of flour, the demand being confined mainly to the usual city and eastern trade. Within the last week, however, a more active inquiry has sprung up, chiefly from the east, whence buyers have come forward freely and purchases to a fair extent have been made, chiefly stimulated by reports of the extension of the potato rot in the eastern states. Quotations during the month have fallen off, upon the increasing receipts by canal; at present they are firm, with a tendency on the low grades to advance, while a contrary course is anticipated with the high grades. The sales add up 40,000 brls. at \$4a\$4.25 for common state, \$4.25a\$4.37½ for old Western, which is scarce, \$4.50a\$4.62½ for fresh ground state, \$4.62½a\$4.75 for new Western, \$4.57½a\$5 for pure Genesee, \$5 for fancy Western, \$5.12½a\$5.37½ for fancy Genesee, and \$5.50a\$6.50 for extra do. Buckwheat is beginning to arrive and sells at \$2 per cwt.

GRAIN.—The market for grain, especially for Wheat and Barley, has been very active. In Wheat the transactions have reached 105,000 bush., 98,000 of which have been of prime white Genesee, the balance Ohio and Mediterranean; the sales of Wheat for this market are unprecedented in amount; the market closed with our last report at 116a117 for prime samples of Genesee, and after falling to 107c, on the 31st ult., has recovered nearly all it had lost, and is firm at 115a115½c for good samples; the other descriptions sold at 95a100c for Mediterranean, 95a97c for Ohio, and 87½c for a lot of red Ohio. In canal Rye we have no sales to note; in the street 75c is paid. In Corn there is less doing, and the transactions are confined entirely to Western mixed; during a portion of the month the market has been neglected, but within a few days a more active demand has sprung up, caused in part by the condition of the potato crop, and our highest figure in the last report is fully maintained, with a tendency to a further advance; the sales are 59,000 bush., at prices varying from 59 to 63, closing firm at the higher figure. Oats have been dull of sale until within a few days, when a light stock in New York stimulating prices, we have a more active market, with purchases for future delivery; the sales are 66,000 bush., at a range of 39 to 41½c, with sales at 41½ on the spot, and 40a41 for lots to arrive within a few days, and for delivery before the 10th of October. The opening of the Barley season has been more than usually brisk; the light stock of malt in the hands of brewers has caused a ready sale and active demand for all lots of prime barley offering, and holders have met the demand promptly, the receipts by canal being in advance of those of the corresponding period last year, about 300,000 bush. The bulk of the barley coming forward is discolored, and purchases of these descriptions are made at a low figure, or are entirely neglected. There are various opinions as to the extent of the present barley crop, and as a consequence as to the price the article will command before the close of the canal; holders, almost without exception, represent the crop much short of last year; some as high as 400,000 bush., and of course look for high figures all this season; buyers, on the other hand, hold off and buy only as their necessities require, or as the article may suit. All agree that the crop is inferior to that of last year, and that it is not so large. Our sales reported are to the extent of 220,000 bush., of which 136,000 is two-rowed, at quotations ranging from 70 to 80 for both descriptions; the market for ordinary to good two-rowed may be quoted at 70a72c, and for four-rowed at 75a77c; last sales were made at 71½ for two-rowed, and 75½a77c for four-rowed, the higher figure for a very bright sample; in the street 72a75c.

FEED.—The sales are about 90,000 bush., at 9a10 for bran, 11a14c for shorts, 15a18c for second quality, and 60a100c for middlings.

WHISKEY.—The demand has been good and always in excess of the supply; the sales are 1300 brls. closing firm at 27½ for S. P.

SALT.—Sales to a fair extent at 10a10½ for bags, and 100c for brls.

HOPS.—Some samples of the new crop have been received and show well; the condition of the English crop, upon which £200,000 duty is backed, forbids high prices here. Sales of the crop of 1849 at 15c.

SEED.—Flax seed arrives sparingly and sells at 125c. Timothy is firm and in demand at \$3.37½.

BROOM CORN.—Sales of Ohio have been made at 8½c.

PROVISIONS.—No demand beyond the retail trade. No change in figures.

Fruit Trees.

THE subscriber offers for sale this fall a good assortment of Apple, Cherry, Apricot, Peach, Plum, (medium size Pear) and Nectarine Trees. Among which are 30,000 fine Apple Trees from 3 to 4 years old and from 7 to 11 feet high; 2,000 to 5,000 each of Baldwin, Newtown Pippin, Rhode Island Greening, Bellflower, &c. 6,000 Cherry Trees, of 40 of the most choice varieties, many of which are of extra size.

4,000 Early Golden Apricot trees of all sizes and shapes.
10,000 Isabella and Catawba Grape vines from 2 to 4 years old.
2,000 Orange Quince bushes (fine).
1,000 Fir Trees from 1½ to four feet high.

The above will be sold as low and on as favorable terms as at any other nursery in this neighborhood. Price catalogues sent to all applicants.

Oct. 1, 1850—1t.

The Nursery is two miles south of Fishkill ferry.

CHARLES DUBOIS.
Fishkill Landing, N. Y.

Nursery.

THE subscriber offers for sale 5,000 Apple Trees, from 6 to 9 feet high, comprising 100 of the best varieties cultivated, at 17 cents each. 3,000 Peach Trees, from 6 to 9 feet, comprising 50 of the best varieties, at \$12.50 per hundred, 17 cts. per single tree. A few Cherry, Pear and Plum trees; various kinds of Ornamental trees, from 25 to 33 cents. 1,500 Arbor Vites, from 3 to 5 feet, suitable for hedges, \$12.50 per hundred.

The Nursery is situated within 2 miles of Daysville depot, on the Norwich and Worcester Railroad. Trees will be carefully packed and delivered at the above place free of charge, when orders exceed \$5. Persons from abroad ordering trees are assured that their orders will be faithfully executed.

SIMON L. COTTON.
Pomfret Landing, Conn., Oct. 1, 1850—1t*.

Samuel Moulson,

At the Old Rochester Nursery, North Clinton-street, Rochester, N. Y.
Office 36 Front-street,

BEGS to offer the usual assortment of fruit and ornamental trees, shrubs, bulbs and herbaceous plants, among which are—

100,000 of the celebrated Northern Spy Apple tree, root grafted, and sufficiently deeply planted to insure roots from the scions. This tree is remarkably thrifty. Those I offer are fine grown, guaranteed true to name, or the purchase money refunded.

6 to 8 feet, 37½ cents each. 5 to 6 feet, 31½ cents. 4 feet, 25 cents. 40,000 various select sorts of Apple. 30,000 Pear, Peach, Cherry, Apricot, Nectarines, Plums, &c. 5,000 fine 4 year Norway Spruce, grown from seeds once transplanted. Orders solicited, and trees properly packed for any part of the United States or Canada. Catalogues to be had gratis.

OFFERED TO THE TRADE,

100,000 one year Pear seedlings; 50,000 two year Apple seedlings; 10,000 one year Cherry seedlings; 50,000 one year Norway Spruce, with many other items, a trade list of which will be furnished early in autumn.

Oct. 1—1t.

Highland Nurseries, Newburgh, N. Y.

(Late A. J. Downing & Co.)

THE proprietors of this establishment offer for sale, this autumn, the largest stock of Fruit and Ornamental Trees, which they have ever before had the pleasure of offering to their patrons, and the public in general.

They would particularly call the attention of dealers and planters on a large scale, to the superior quality of the stock, who will be dealt with on the best and most liberal terms.

Their stock of Pear trees is very large, over twenty thousand, and extra in quality, and comprises all the leading standard varieties, as well as all the recent acquisitions of merit.

Particular attention paid to the cultivation of the Pear on Quince, Cherry on Mahaleb and Apple on Paradise Stocks for pyramids and dwarfs for garden culture; and of which there is a choice assortment of the kinds most suited for those purposes.

Apple trees, of large size, in every variety; also Plum, Cherry, Peach, Nectarine, Apricot and Quince trees, of every known variety worthy of cultivation.

Together with a full assortment of Grape Vines, native and foreign, Raspberries, Gooseberries, Currants, Strawberries, and esculent roots, such as Asparagus, Rhubarb, Sea Kale, &c., of the most approved kinds.

HEDGE PLANTS.—In large quantities of American Arbor Vite, Osage Orange, Buckthorn, Three-thorned Acania, &c.

Also Ornamental Trees and Shrubs, (evergreen and deciduous,) of large size, and in large quantities, at reduced rates.

For further particulars they would refer to a new, improved, and greatly enlarged edition of their Catalogue, just published, and ready for distribution (gratis) to all post-paid applicants.

Oct. 1st, 1850.

A. SAUL & CO.

A New Hardy Climber.

THE new and beautiful CLIMBER, *Calestigia pubescens*, recently introduced from China, by Mr. Fortune, proves perfectly hardy in New England, having stood in the grounds here the past winter, without the least protection. Trained to a single pillar, say 10 feet in height, it is a very striking and beautiful object from the middle of June till cold weather, during which time it is covered with a profusion of its large double flowers, of a delicate rose color. It is very ornamental planted in patches like the verbenas; makes an admirable screen, and is very effective in young plantations, belts, or shrubberies, trailing prettily on the surface, and running up among the lower branches of trees in a very picturesque manner. It is, therefore, particularly suited for ornamenting cemeteries and public gardens. Its culture is very simple, and it thrives in any good garden soil. When required in considerable quantities, it is best to start it under glass in February or March, but the tubers may also be planted in the open ground in May. The subscriber will send to order, by mail or express, October 20th, tubers sufficient for 100 plants, at \$5.00; 50 plants, \$3.00; with directions for propagation and culture.

Strong plants in pots, in April, \$1 per pair. B. M. WATSON.

Old Colony Nurseries, Plymouth, Mass., Oct. 1, 1850—1t

BONE MILL.—For sale, one Bone Mill, for horse power, complete, capable of grinding from 150 to 200 bushels per day. Also, a Steam-Power Mill, capable of grinding from 800 to 1,200 bushels per day. Engine of 16-Horse Power, with two boilers, of 25-Horse Power, all complete. Apply by letter, or otherwise, to

ALEXANDER HORNBY,
26th st., 9th Avenue, New-York.

N. B.—The Horse Power will be sold very cheap.
Oct. 1—1t*.